

**Table D-E-1**  
**Nitrogen Oxides (NO<sub>x</sub>) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*AK-0084	DONLIN GOLD PROJECT	6/30/2017	Fire Pump Diesel Internal Combustion Engines	Diesel	252	hp	Three (3) 252 hp fire pump diesel internal combustion engines.	Good Combustion Practices	3.7	G/KW-HR	3-HOUR AVERAGE	0			0		
*LA-0312	ST. JAMES METHANOL PLANT	6/30/2017	DPPI-13 - Diesel Fire Pump Engine (EQ0013)	Diesel	650	horsepower	Operating hour limit: 100 hr/yr	Compliance with NSPS Subpart IIII	6.6	LB/HR		0			0		
LA-0313	ST. CHARLES POWER STATION	8/31/2016	SCPS Emergency Diesel Firewater Pump 1	Diesel	282	HP		Compliance with NESHA 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	1.87	LB/H	HOURLY MAXIMUM	0.47	T/YR	ANNUAL MAXIMUM	3	G/BHP-H	
LA-0316	CAMERON LNG FACILITY	2/17/2017	firewater pump engines (8 units)	diesel	460	hp		Complying with 40 CFR 60 Subpart IIII	0			0			0		
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	Firewater pump Engines (4 units)	diesel	896	hp (each)		complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0			0			0		
LA-0323	MONSANTO LULING PLANT	1/9/2017	Fire Water Diesel Pump No. 3 Engine	Diesel Fuel	600	hp	Emergency engine with a limit of 100 hours/yr on operating hours for ready testing.	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0			0			0		
LA-0323	MONSANTO LULING PLANT	1/9/2017	Fire Water Diesel Pump No. 4 Engine	Diesel Fuel	600	hp	Emergency Engine limited to 100 hours/yr for ready tests	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0			0			0		
MI-0421	GRAYLING PARTICLEBOARD	8/26/2016	Dieself fire pump engine (EUFIREPUMP in FGRICE)	Diesel	500	H/YR	One diesel fire pump engine rated at 400 KW (identified as EUFIREPUMP in FGRICE).	Certified engines, limited operating hours.	3.53	LB/H	TEST PROTOCOL WILL SPECIFY AVG TIME	0			0		
MI-0423	INDECK NILES, LLC	1/4/2017	EUPENGINE (Emergency engine--diesel fire pump)	Diesel	1.66	MMBTU/H	A 260 brake horsepower (bhp) diesel-fueled emergency engine manufactured in 2011 or later and a displacement of <10 liters/cylinder. Powers a fire pump used for a back up during an emergency (EUPENGINE). Restricted to 1 hour/day, except during emergency conditions and stack testing, and 100 hours/year on a 12-month rolling time period basis.	Good combustion practices and meeting NSPS Subpart IIII requirements.	3	G/BHP-H	TEST PROTOCOL WILL SPECIFY AVG TIME	0			0		
MI-0425	GRAYLING PARTICLEBOARD	5/9/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	Diesel	500	H/YR	One diesel fire pump engine rated at 400 KW (EUFIREPUMP in FGRICE).	Certified engines. Limited operating hours.	3.53	LB/H	TEST PROTOCOL SHALL SPECIFY	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (South Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Good combustion practices and meeting NSPS Subpart IIII requirements.	3	G/BHP-H	HOURLY	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (North Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Good combustion practices and meeting NSPS Subpart IIII requirements.	3	G/BHP-H	HOURLY	0			0		
*MI-0434	FLAT ROCK ASSEMBLY PLANT	3/22/2018	EUFIREPUMPENGS (2 emergency fire pump engines)	Diesel	250	BHP	EUFIREPUMPENGS - Two (2) diesel-fueled emergency fire pump engines rated at 250 brake horsepower (BHP). No add-on control.	Good combustion practices.	3	G/B-HP-H	HOURLY; EACH ENGINE (NMHC+NOX)	2.8	LB/H	HOURLY; EACH ENGINE (NOX)	0		
*MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	7/16/2018	EUPENGINE: Fire pump engine	Diesel	399	BHP	A 399 brake HP diesel-fueled emergency fire pump engine with a model year of 2011 or later, and a displacement of <10 liters/cylinder. The engine is an EPA Tier 3 certified engine subject to NSPS IIII.	State of the art combustion design.	4	G/KW-H	HOURLY	0			0		
*VA-0325	GREENSVILLE POWER STATION	6/17/2016	DIESEL-FIRED WATER PUMP 376 bph (1)	DIESEL FUEL	0		FWP-1: 104.0 tons/year (12-month rolling total)	Good Combustion Practices/Maintenance	0			0			0		
*AK-0083	KENAI NITROGEN OPERATIONS	1/6/2015	Diesel Fired Well Pump	Diesel	2.7	MMBTu/hr	2.7 MMBtu/hr Diesel Fired Well Pump. Installed in 1966.	Limited Operation of 168 hr/yr.	4.41	LB/MMBTU		0			0		
CA-1144	BLYTHE ENERGY PROJECT II	4/25/2007	FIRE PUMP	DIESEL	303	HP			7.5	LB/H		0			0		
CA-1191	VICTORVILLE 2 HYBRID POWER PROJECT	3/11/2010	EMERGENCY FIREWATER PUMP ENGINE	DIESEL	135	KW	135 KW (182 hp) IC Diesel-fired Emergency Firewater Pump Engine	OPERATIONAL RESTRICTION OF 50 HR/YR, OPERATE AS REQUIRED FOR FIRE SAFETY TESTING	3.8	G/KW-HR		2.8	G/B-HP-H		0		
CA-1192	AVENAL ENERGY PROJECT	6/21/2011	EMERGENCY FIREWATER PUMP ENGINE	DIESEL	288	HP		EQUIPPED W/ A TURBOCHARGER AND AN INTERCOOLER/AFTERCOOLER	3.4	G/B-HP-H		0			0		
CA-1213	MOUNTAINVIEW POWER COMPANY LLC	4/21/2006	EMERGENCY FIRE IC ENGINE	DIESEL	375	BHP			0			0			0		
FL-0324	PALM BEACH RENEWABLE ENERGY PARK	12/23/2010	Two emergency diesel firewater pump engines		250	HP	The permittee is authorized to construct a 1,000 gallon tank to store ULSD fuel oil for use in the emergency diesel firewater pump engines.	demonstrate compliance in accordance with the procedures given in 40 CFR 60, Subpart IIII	3	G/B-HP-H		0			0		

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**Nitrogen Oxides (NO<sub>x</sub>) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
IA-0105	IOWA FERTILIZER COMPANY	10/26/2012	Fire Pump	diesel fuel	14	GAL/H	rated @ 235 KW	good combustion practices	3.75	G/KW-HR	AVERAGE OF 3 STACK TEST RUNS	0.49	T/YR	ROLLING 12 MONTH TOTAL	0		
ID-0018	LANGLEY GULCH POWER PLANT	6/25/2010	FIRE PUMP ENGINE	DIESEL	235	KW	COMPRESSION IGNITION INTERNAL COMBUSTION (CICE)	TIER 3 ENGINE-BASED GOOD COMBUSTION PRACTICES (GCP)	4	G/KW-HR	NOX+NMHC	0			0		
*IL-0114	CRONUS CHEMICALS, LLC	9/5/2014	Firewater Pump Engine	distillate fuel oil	373	hp		Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	3.5	G/KW-HR		0			0		
*IN-0158	ST. JOSEPH ENEGRY CENTER, LLC	12/3/2012	TWO (2) FIREWATER PUMP DIESEL ENGINES	DIESEL	371	BHP, EACH	THE TWO FIREWATER PUMP ENGINES, IDENTIFIED AS FP01 AND FP02, EXHAUSTING THROUGH TWO (2) VENTS.	COMBUSTION DESIGN CONTROLS AND USAGE LIMITS	3	G/B-HP-H	3 HOURS	500	HOURS OF OPERATION	YEARLY	0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP		500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	2.83	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0179	OHIO VALLEY RESOURCES, LLC	9/25/2013	DIESEL-FIRED EMERGENCY WATER PUMP	NO. 2 FUEL OIL	481	BHP	ANNUAL OPERATION LIMITED TO 200 HR.	GOOD COMBUSTION PRACTICES	2.86	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP		500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	2.83	G/B-HP-H	3-HR AVERAGE	0			0		
LA-0192	CRESCENT CITY POWER	6/6/2005	DIESEL FIRED WATER PUMP				425 HP	GOOD ENGINE DESIGN AND PROPER OPERATING PRACTICES	8.9	LB/H	HOURLY MAXIMUM	0.23	T/YR	ANNUAL MAXIMUM	9.5	G/B-HP-H	ANNUAL AVERAGE
LA-0224	ARSENAL HILL POWER PLANT	3/20/2008	DFP DIESEL FIRE PUMP	DIESEL	310	HP	EQT-016	USE OF LOW-SULFUR FUELS, LIMITING OPERATING HOURS AND PROPER ENGINE MAINTENANCE	9.61	LB/H	MAX	0			0		
LA-0251	FLOPAM INC. FACILITY	4/26/2011	Fire Pump Engines - 2 units	diesel	444	hp	each		5.82	LB/H		0.29	T/YR		3	G/HP-H	(NOX + NMHC)
*MA-0039	SALEM HARBOR STATION REDEVELOPMENT	1/30/2014	Fire Pump Engine	ULSD	2.7	MMBTU/hr	at least 300 hours of operation per 12-month rolling period S in ULSD: at least 0.0015% by weight		3	G/B-HP-H	1 HR BLOCK AVG	2.44	LB/H	1 HR BLOCK AVG	0		
MD-0040	CPV ST CHARLES	11/12/2008	INTERNAL COMBUSTION ENGINE - EMERGENCY FIRE WATER PUMP	DIESEL	300	HP			3	G/B-HP-H		0			0		
*MD-0041	CPV ST. CHARLES	4/23/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA-LOW SULFUR DIESEL	300	HP	40 CFR 60, SUBPART IIII, ULTRA LOW-SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES, AND LIMITING THE HOURS OF OPERATION	3	G/B-HP-H	N/A	0			0		
*MD-0042	WILDCAT POINT GENERATION FACILITY	4/8/2014	DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA LOW SULFUR DIESEL	477	HP	40 CFR 60, SUBPART IIII, ULTRA LOW-SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	LIMITED OPERATING HOURS, USE OF ULTRA- LOW SULFUR FUEL AND GOOD COMBUSTION PRACTICES	3	G/B-HP-H		4	G/KW-H		0		
*MD-0043	PERRYMAN GENERATING STATION	7/1/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA LOW SULFUR DIESEL	350	HP	40 CFR 60, SUBPART IIII, GOOD COMBUSTION PRACTICES	GOOD COMBUSTION PRACTICES, LIMITED HOURS OF OPERATION, AND EXCLUSIVE USE OF ULSD	3	G/B-HP-H		4	G/KW-H		0		
*MD-0044	COVE POINT LNG TERMINAL	6/9/2014	EMERGENCY FIRE WATER PUMP ENGINES	ULTRA LOW SULFUR DIESEL	350	HP	40 CFR 60, SUBPART IIII, ULTRA LOW-SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	GOOD COMBUSTION PRACTICES AND DESIGNED TO ACHIEVE EMISSION LIMIT	3	G/B-HP-H	NOX + NMHC TEST	4	G/KW-H	NOX + NMHC	0		
*MI-0400	WOLVERINE POWER	6/29/2011	Fire Pump	Diesel	420	HP	Maximum operation was based on 500 hours per year. This is a diesel fuel fired emergency backup fire pump. It has a capacity of 315 hp, nameplate, and uses diesel fuel ASTM D975 Grade 2-D S15.		3	G/B-HP-H	TEST PROTOCOL: BACT/SIP/NSPS	0			0		
*MI-0410	THETFORD GENERATING STATION	7/25/2013	EU-FPENGINE: Diesel fuel fired emergency backup fire pump	diesel fuel	315	hp nameplate	Ultra low sulfur diesel fuel (15ppmw); 100 hours per year operation for maintenance and readiness testing. NSPS IIII and NESHAP ZZZZ.	Proper combustion design and ultra low sulfur diesel fuel.	3	G/B-HP-H	TEST PROTOCOL WILL SPECIFY AVG. TIME	0			0		
*MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/4/2013	Emergency Engine -Diesel Fire Pump (EUPENGINE)	Diesel	165	HP	A 165 horsepower (hp) diesel-fueled emergency engine manufactured in 2013, with a heat input of 1.35 MMBTU/hr. Powers a fire pump used for back up during an emergency (EUPENGINE). Restricted to 500 hours/year on a 12-month rolling time period basis.	Good combustion practices	3	G/B-HP-H	TEST PROTOCOL	0			0		

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RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
NC-0101	FORSYTH ENERGY PLANT	9/29/2005	IC ENGINE, EMERGENCY FIREWATER PUMP	DIESEL FUEL	11.4	MMBTU/H	usage limited to 200 h/yr		36.48	LB/H		0			7.7	G/B-HP-H	calculated, assumes 48% efficiency
*NL-0081	PSEG FOSSIL LLC SEWAREN GENERATING STATION	3/7/2014	Emergency diesel fire pump	Ultra Low Sulfur Distillate oil	0		The fire pump has a maximum heat input rate of 2.63 MMBtu/hr (approximately 250 HP) and is permitted for 100 hrs per year for testing and maintenance		1.75	LB/H		0			0		
OH-0317	OHIO RIVER CLEAN FUELS, LLC	11/20/2008	FIRE PUMP ENGINES (2)	DIESEL FUEL OIL	300	HP	SUBJECT TO NSPS SUBPART III. WILL INSTALL NON-RESETTABLE HOUR METER PRIOR TO STARTUP PER 40 CFR 60.4209(A)  DIESEL FUEL SHALL MEET THE REQUIREMENTS OF 40 CFR 80.510 AND 60.4207: SULFUR CONTENT OF 15 PPM MAXIMUM, CETANE INDEX OF 40 MINIMUM OR AROMATIC CONTENT OF 35 VOLUME % MAXIMUM	GOOD COMBUSTION PRACTICES, GOOD ENGINE DESIGN, IGNITION TIMING RETARD, TURBOCHARGER, AND LOW-TEMPERATURE AFTERCOOLER	4.89	LB/H	FOR EACH ENGINE	1.23	T/YR	PER ROLLING 12-MONTH PERIOD	7.8	G/HP-H	FOR NMHC AND NOX COMBINED 95% NOX
*OH-0352	OREGON CLEAN ENERGY CENTER	6/18/2013	Emergency fire pump engine	diesel	300	HP	223.8 kW. Emergency fire pump engine restricted to 500 hours of operation per rolling 12 months.	Purchased certified to the standards in NSPS Subpart III	1.7	LB/H		0.43	T/YR	PER ROLLING 12-MONTHS	0		SEE NOTES
OK-0129	CHOUTEAU POWER PLANT	1/23/2009	EMERGENCY FIRE PUMP (267-HP DIESEL)	LOW SULFUR DIESEL	267	HP			4.59	LB/H		7.8	G/B-HP-H	NSPS	0		
PA-0278	MOXIE LIBERTY LLC/ASYLUM POWER PL T	10/10/2012	Fire Pump	Diesel	0		The fire pump will be restricted to operate not more than 100 hr/yr.		2.6	G/B-HP-H		2.6	LB/H		2.6	G/B-HP-H	
*PA-0286	MOXIE ENERGY LLC/PATRIOT GENERATION PLT	1/31/2013	Fire Pump Engine - 460 BHP	Diesel	0				2.6	G/B-HP-H	EXPRESSED AS NO2	2.6	LB/H		0.13	T/YR	
*PA-0291	HICKORY RUN ENERGY STATION	4/23/2013	EMERGENCY FIREWATER PUMP	ULTRA LOW SULFUR DISTILLATE	3.25	MMBTU/H	EMERGENCY FIREWATER PUMP (450 BHP)		1.86	LB/H		0.09	T/YR	12 MONTH ROLLING TOTAL	0		
*PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTOLAUNEE	12/17/2013	Emergency Firewater Pump	Diesel	16	Gal/hr			0.09	T/YR	BASED ON 12-MONTH ROLLING TOTAL	0			0		
*PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY PROJECT	4/10/2014	Emergency Diesel Fire Pump	ULSD Fuel Oil #2	0		The Emergency Fire Pump is rated at 335 BHP and limited to 500 hr/yr (emergency operations and testing and maintenance, combined).		2.85	G/B-HP-H		2.1	LB/H		0		
SC-0113	PYRAMAX CERAMICS, LLC	2/8/2012	FIRE PUMP	DIESEL	500	HP	THE CONSTRUCTION PERMIT AUTHORIZES THE CONSTRUCTION OF ONE (1) FIRE PUMP. THIS PROCESS AND POLLUTANT INFORMATION IS FOR THIS ONE SINGLE FIRE PUMP.	PURCHASE OF CERTIFIED ENGINE BASED ON NSPS, SUBPART III.	4	G/KW-HR		0			0		
*TX-0706	NATURAL GAS FRACTIONATION	1/23/2014	Emergency Engines	Ultra-low sulfur diesel	0		The process includes 1 emergency generator and 4 emergency firewater pump engines. The sulfur in the diesel fuel will meet the sulfur requirement of 15 ppm in 40 CFR 80.510(b).  The emissions from each engine result from weekly testing which will occur 52 hours a year for each engine.		0.33	T/YR		0			0		
*WV-0025	MOUNDSVILLE COMBINED CYCLE POWER PLANT	11/21/2014	Fire Pump Engine	Diesel	251	HP	Limited to 100 Hours/year.		0			0			3	G/HP-HR	NMHC + NOX
*WY-0070	CHEYENNE PRAIRIE GENERATING STATION	8/28/2012	Diesel Fire Pump Engine (EP16)	Ultra Low Sulfur Diesel	327	hp		EPA Tier 3 rated	0			0			0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	2.83	G/B-HP-H	3-HR AVERAGE	0			0		
*MI-0399	DETROIT EDISON--MONROE	12/21/2010	4 Diesel-fired quench pumps	Diesel fuel	252	HP	Each pump engine is 252 HP. They are limited to emergency use and subject to NSPS Subpart III.	Good combustion practices.	7.8	G/B-HP-H	QP1&QP2 EACH: TEST PROTOCOL	3	G/B-HP-H	QP3&QP4 EACH: TEST PROTOCOL	0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	2.83	G/B-HP-H	3-HR AVERAGE	0			0		
	Astoria Energy LLC		Fire Pump	Ultra Low Sulfur Diesel				Clean Fuel	3.44	lb/MMBtu	3-hr block average		lbs/hr	3-hour block average			
	Catoctin Power LLC		Firewater Pump	Ultra Low Sulfur Diesel	370	kW		Good Combustion Practices	11.5	LB/H	3-hr average	100	hr/yr				
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBTu/hr		Pipeline quality NG	2.44	LB/H	1-hr average	3	g/hp-hr	1-hr average			
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBTu/hr		Pipeline quality NG	4	g/KW-hr	1-hr average						

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	CPV Valley Energy Center Wawayanda, NY		Fire Pump	ULSD	325	bhp		Good combustion controls.	0.857	lb/MMBtu	1-hr average						
	Cricket Valley Energy Center		Fire Pump	ULSD	2.8	MMBtu/hr			0.95	lb/MMBtu		2.6	g/hp-hr				
	Pioneer Valley Energy Center		Fire Pump	ULSD	270	HP			4	g/KW-hr							
	Hess Newark Energy Center		Fire Pump	ULSD	270	HP			1.55	LB/H		0.16	tpy				
	Woodbridge Energy Center		Fire Wate Pump	Ultra Low Sulfur Diesel					1.93	LB/H		0.096	tpy				

**Table D-E-2**  
**Carbon Monoxide (CO) RBL Search - Fire Water Pump**  
**Invenery, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*AK-0084	DONLIN GOLD PROJECT	6/30/2017	Fire Pump Diesel Internal Combustion Engines	Diesel	252	hp	Three (3) 252 hp fire pump diesel	Good Combustion Practices	3.3	G/KW-HR	3-HOUR AVERAGE	0			0		
FL-0356	OKEECHOBEE CLEAN ENERGY CENTER	3/9/2016	One 422-hp emergency fire pump engine	ULSD	0		BACT limits equal to NSPS Subpart III	Use of clean engine technology	3.5	G / KW-HR		0			0		
*FL-0363	DANIA BEACH ENERGY CENTER	12/4/2017	Emergency Fire Pump Engine (422 hp)	ULSD	0		Limits equal Subpart III limits	Certified engine	3.5	G / KWH		0			0		
*LA-0312	ST. JAMES METHANOL PLANT	6/30/2017	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	Diesel	650	horsepower	Operating hour limit: 100 hr/yr	Compliance with NSPS Subpart III	0.9	LB/HR		0			0		
LA-0313	ST. CHARLES POWER STATION	8/31/2016	SCPS Emergency Diesel Firewater Pump 1	Diesel	282	HP		Compliance with NESHAP 40 CFR 63	1.62	LB/H	HOURLY MAXIMUM	0.4	T/YR	ANNUAL MAXIMUM	2.6	G/BHP-H	
LA-0316	CAMERON LNG FACILITY	2/17/2017	firewater pump engines (8 units)	diesel	460	hp		Complying with 40 CFR 60 Subpart III	0			0			0		
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	Firewater pump Engines (4 units)	diesel	896	hp (each)		complying with 40 CFR 60 Subpart III	0			0			0		
LA-0323	MONSANTO LULING PLANT	1/9/2017	Fire Water Diesel Pump No. 3 Engine	Diesel Fuel	600	hp	Emergency engine with a limit of 100	Proper operation and limits on hours	0			0			0		
LA-0323	MONSANTO LULING PLANT	1/9/2017	Fire Water Diesel Pump No. 4 Engine	Diesel Fuel	600	hp	Emergency Engine limited to 100	Proper operation and limits on hours of	0			0			0		
MI-0421	GRAYLING PARTICLEBOARD	8/26/2016	Dieself fire pump engine (EUFIREPUMP in FGRICE)	Diesel	500	H/YR	One diesel fire pump engine rated	Good design and combustion practices.	3.5	G/KW-H	TEST PROTOCOL	3.09	LB/H	TEST PROTOCOL	0		
MI-0423	INDECK NILES, LLC	1/4/2017	EUFENGINE (Emergency engine—diesel fire pump)	Diesel	1.66	MMBTU/H	A 260 brake horsepower (bhp)	Good combustion practices and meeting	2.6	G/BHP-H	TEST PROTOCOL	0			0		
MI-0425	GRAYLING PARTICLEBOARD	5/9/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	Diesel	500	H/YR	One diesel fire pump engine rated	Good design and combustion practices.	3.5	G/KW-H	TEST PROTOCOL	3.09	LB/H	TEST PROTOCOL	0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUFENGINE (South Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel- fired emergency fire	Good combustion practices and meeting	2.6	G/BPH-H	HOURLY	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUFENGINE (North Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel- fired emergency fire	Good combustion practices and meeting	2.6	G/BHP-H	HOURLY	0			0		
*MI-0435	BELLE RIVER COMBINED CYCLE	7/16/2018	EUFENGINE: Fire pump engine	Diesel	399	BHP	A 399 brake HP diesel-fueled	State of the art combustion design.	3.5	G/KW-H	HOURLY	0			0		
NI-0084	PSEG FOSSIL LLC SEWAREN GENERATING	3/10/2016	Emergency Diesel Fire Pump	ULSD	100	H/YR	Maximum heat Input Rate = 2.6	use of ULSD a clean burning fuel, and	1.1	LB/H		0			0		
NY-0103	CRICKET VALLEY ENERGY CENTER	2/3/2016	Emergency fire pump	ultra low sulfur diesel	460	hp		Compliance demonstrated with	0.53	G/BHP-H	1 H	0			0		
*PA-0310	CPV FAIRVIEW ENERGY CENTER	9/2/2016	Emergency Fire Pump Engine	ULSD	0		Sulfur content of diesel fuel shall not		2.61	G/BHP-HR		0			0		
TX-0799	BEAUMONT TERMINAL	6/8/2016	Fire pump engines	diesel	0			Equipment specifications and	0.0055	LB/HP-HR		0			0		
*VA-0325	GREENSVILLE POWER STATION	6/17/2016	DIESEL-FIRED WATER PUMP 376 bph (1)	DIESEL FUEL	0		FWP-1: 104.0 tons/year (12-month 2.7 MMBtu/hr Diesel Fired Well Pump. Installed in 1966.	Good Combustion Practices/Maintenance	2.6	G/HP-H	HR	0			0		
*AK-0083	KENAI NITROGEN OPERATIONS BLYTHE ENERGY	1/6/2015	Diesel Fired Well Pump	Diesel	2.7	MMBTu/hr		Limited Operation of 168 hr/yr.	0.95	LB/MMBTU		0			0		
CA-1144	PROJECT II	4/25/2007	FIRE PUMP	DIESEL	303	HP			0.7	LB/H		0			0		
CA-1191	VICTORVILLE 2 HYBRID POWER PROJECT	3/11/2010	EMERGENCY FIREWATER PUMP ENGINE	DIESEL	135	KW	135 KW (182 hp) IC Diesel-fired Emergency Firewater Pump Engine	OPERATIONAL RESTRICTION OF 50 HR/YR. OPERATE AS REQUIRED FOR FIRE SAFETY TESTING	3.5	G/KW-HR		2.6	G/B-HP-H		0		
CA-1192	AVENAL ENERGY PROJECT	6/21/2011	EMERGENCY FIREWATER PUMP ENGINE	DIESEL	288	HP		EQUIPPED W/ A TURBOCHARGER AND AN INTERCOOLER/AFT ERCOOLER	0.447	G/B-HP-H		0			0		
FL-0324	PALM BEACH RENEWABLE ENERGY PARK	12/23/2010	Two emergency diesel firewater pump engines		250	HP	The permittee is authorized to construct a 1,000 gallon tank to store ULSD fuel oil for use in the emergency diesel firewater pump engines.	demonstrate compliance in accordance with the procedures given in 40 CFR 60, Subpart III	2.6	G/B-HP-H		0			0		
IA-0084	ADM POLYMERS	11/30/2006	FIRE PUMP ENGINE	DIESEL FUEL	460	HP	THERE ARE 4 IDENTICAL FIRE PUMP ENGINES ASSOCIATED WITH THIS PROJECT. ALL OF THE UNITS HAVE THE SAME EMISSION LIMITS	GOOD COMBUSTION PRACTICES	2.6	G/B-HP-H	AVERAGE OF THREE (3) TEST RUNS	0.78	T/YR	ROLLING 12 MONTH TOTAL	0		

**Table D-E-2**  
**Carbon Monoxide (CO) RBL Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCD	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
ID-0018	LANGLEY GULCH POWER PLANT	6/25/2010	FIRE PUMP ENGINE	DIESEL	235	KW		TIER 3 ENGINE- BASED, GOOD COMBUSTION PRACTICES (GCP)	0		SEE NOTE	0			0		
*IL-0114	CRONUS CHEMICALS, LLC	9/5/2014	Firewater Pump Engine	distillate fuel oil	373	hp		Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	3.5	G/KW-HR		0			0		
*IN-0158	ST. JOSEPH ENERGY CENTER, LLC	12/3/2012	TWO (2) FIREWATER PUMP DIESEL ENGINES	DIESEL	371	BHP, EACH	THE TWO FIREWATER PUMP ENGINES, IDENTIFIED AS FP01 AND FP02, EXHAUSTING THROUGH TWO (2) VENTS.	COMBUSTION DESIGN CONTROLS AND USAGE LIMITS	2.6	G/B-HP-H		500	HOURS OF OPERATION	YEARLY	0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP		500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	2.6	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0179	OHIO VALLEY RESOURCES, LLC	9/25/2013	DIESEL-FIRED EMERGENCY WATER PUMP	NO. 2 FUEL OIL	481	BHP	ANNUAL OPERATION LIMITED TO 200 HR.	GOOD COMBUSTION PRACTICES	2.6	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP		500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	2.6	G/B-HP-H	3-HR AVERAGE	0			0		
LA-0192	CRESCENT CITY POWER	6/6/2005	DIESEL FIRED WATER PUMP				425 HP	GOOD ENGINE DESIGN AND PROPER OPERATING PRACTICES	1.88	LB/H	HOURLY MAXIMUM	0.05	T/YR	ANNUAL MAXIMUM	2.01	G/B-HP-H	ANNUAL AVERAGE
LA-0224	ARSENAL HILL POWER PLANT	3/20/2008	DFP DIESEL FIRE PUMP	DIESEL	310	HP	EQT-016	USE OF LOW- SULFUR FUELS, LIMITING OPERATING HOURS AND PROPER ENGINE MAINTENANCE	2.07	LB/H	MAX	0			0		
LA-0251	FLOPAM INC. FACILITY	4/26/2011	Fire Pump Engines - 2 units	diesel	444	hp	each	good equipment design and proper combustion practices	0.65	LB/H		0.03	T/YR		0		
LA-0254	NINEMILE POINT ELECTRIC GENERATING PLANT	8/16/2011	EMERGENCY FIRE PUMP	DIESEL	350	HP		ULTRA LOW SULFUR DIESEL AND GOOD COMBUSTION PRACTICES	2.6	G/B-HP-H	LB/MM BTU	2.6	G/HP-H	ANNUAL AVERAGE			
*MA-0039	SALEM HARBOR STATION REDEVELOPMENT	1/30/2014	Fire Pump Engine	ULSD	2.7	MMBtu/hr	at least 300 hours of operation per 12- month rolling period S in ULSD: at least 0.0015% by weight		2.6	G/B-HP-H	1 HR BLOCK AVG	2.14	LB/H	1 HR BLOCK AVG	0		
MD-0040	CPV ST CHARLES	11/12/2008	INTERNAL COMBUSTION ENGINE - EMERGENCY FIRE WATER PUMP	DIESEL	300	HP			2.6	G/B-HP-H		0			0		
*MD-0041	CPV ST. CHARLES	4/23/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA-LOW SULFUR DIESEL	300	HP	40 CFR 60, SUBPART IIII, ULTRA LOW- SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	USE OF ULTRA LOW SULFUR DIESEL AND GOOD COMBUSTION PRACTICES	2.6	G/B-HP-H	N/A	0			0		

**Table D-E-2**  
**Carbon Monoxide (CO) RBL Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*MD-0042	WILDCAT POINT GENERATION FACILITY	4/8/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA LOW SULFUR DIESEL	477	HP	40 CFR 60, SUBPART IIII, ULTRA LOW- SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES LIMITED TO 100 HOURS PER YEAR	USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES AND HOURS OF OPERATION LIMITED TO 100 HOURS PER YEAR	2.6	G/B-HP-H		3.49	G/KW-H		0		
*MD-0044	COVE POINT LNG TERMINAL	6/9/2014	5 EMERGENCY FIRE WATER PUMP ENGINES	ULTRA LOW SULFUR DIESEL	350	HP	40 CFR 60, SUBPART IIII, ULTRA LOW- SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES DESIGNED TO MEET EMISSION LIMIT	GOOD COMBUSTION PRACTICES AND DESIGNED TO MEET EMISSION LIMIT	3	G/B-HP-H		4	G/KW-H		0		
MI-0389	KARN WEADOCK GENERATING COMPLEX	12/29/2009	FIRE PUMP	ULTRA LOW SULFUR DIESEL	525	HP	OPERATIONAL LIMITS: 1 HOUR/DAY AND 500 HRS/YEAR FOR PM2.5 NAAQS.	ENGINE DESIGN AND OPERATION. 15 PPM SULFUR FUEL	2.6	G/B-HP-H	TEST METHOD	0			0		
MI-0389	KARN WEADOCK GENERATING COMPLEX	12/29/2009	FIRE BOOSTER PUMP	ULTRA LOW SULFUR DIESEL	40	KW	OPERATIONAL LIMITS 1 HR/DAY AND 500 HRS/YR FOR PM2.5 NAAQS.	ENGINE DESIGN AND OPERATION. 15 PPM SULFUR FUEL.	5	G/KW-HR	TEST METHOD	0			0		
*MI-0410	THETFORD GENERATING STATION	7/25/2013	EU-FPENGINE: Diesel fuel fired emergency backup fire pump	diesel fuel	315	hp nameplate	This is a diesel fuel fired emergency backup fire pump. It has a capacity of 315 hp, nameplate, and uses diesel fuel ASTM D975 Grade 2-D S15.  Ultra low sulfur diesel fuel (15ppmw); 100 hours per year operation for maintenance and readiness testing. NSPS IIII and NESHAP ZZZZ.	Proper combustion design and ultra low sulfur diesel fuel.	2.6	G/B-HP-H	TEST PROTOCOL WILL SPECIFY AVG. TIME.	0			0		
*MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/4/2013	Emergency Engine --Diesel Fire Pump (EUPENGINE)	Diesel	165	HP	A 165 horsepower (hp) diesel-fueled emergency engine manufactured in 2013, iwth a heat input of 1.35 MMBTU/hr. Powers a fire pump used for back up during an emergency (EUPENGINE). Restricted to 500 hours/year on a 12- month rolling time period basis.	Good combustion practices	3.7	G/B-HP-H	TEST PROTOCOL	0			0		
*MS-0092	EMBERCLEAR GTL MS	5/8/2014	Eight 325 hp diesel firewater pumps	diesel	325	hp			0			0			0		
NC-0101	FORSYTH ENERGY PLANT	9/29/2005	IC ENGINE, EMERGENCY FIREWATER PUMP	DIESEL FUEL	11.4	MMBTU/H	usage limited to 200 h/yr The fire pump has a maximum heat input rate of 2.63 MMBTU/hr (approximately 250 HP) and is permitted for 100 hrs per year for testing and maintenance		9.69	LB/H		0			2.05	G/B-HP-H	calculated, assumes 48% efficiency
*NJ-0081	PSEG FOSSIL LLC SEWAREN GENERATING STATION	3/7/2014	Emergency diesel fire pump	Ultra Low Sulfur Distillate oil	0				0.079	LB/H		2.6	G/B-HP-H		0		

**Table D-E-2**  
**Carbon Monoxide (CO) RBL Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
OH-0317	OHIO RIVER CLEAN FUELS, LLC	11/20/2008	FIRE PUMP ENGINES (2)	DIESEL FUEL OIL	300	HP	SUBJECT TO NSPS SUBPART III. WILL INSTALL NON- RESETTABLE HOUR METER PRIOR TO STARTUP PER 40 CFR 60.4209(A)  DIESEL FUEL SHALL MEET THE REQUIREMENTS OF 40 CFR 80.510 AND 60.4207: SULFUR CONTENT OF 15 PPM MAXIMUM, CETANE INDEX OF 40 MINIMUM OR AROMATIC CONTENT OF 35 VOLUME % MAXIMUM	GOOD COMBUSTION PRACTICES AND GOOD ENGINE DESIGN	1.72	LB/H	FOR EACH ENGINE	0.43	T/YR	PER ROLLING 12-MONTH PERIOD	2.6	G/HP-H	FROM TABLE 4 OF SUBPART III
*OH-0352	OREGON CLEAN ENERGY CENTER	6/18/2013	Emergency fire pump engine	diesel	300	HP	Emergency fire pump engine restricted to 500 hours of operation per rolling 12 months.	Purchased certified to the standards in NSPS Subpart III	1.7	LB/H		0.43	T/YR	PER ROLLING 12-MONTHS	0		SEE NOTES
OK-0129	CHOUTEAU POWER PLANT	1/23/2009	EMERGENCY FIRE PUMP (267- HP DIESEL)	LOW SULFUR DIESEL	267	HP			2.6	G/B-HP-H	NSPS	0			0		
PA-0278	MOXIE LIBERTY LLC/ASYLUM POWER PL T	10/10/2012	Fire Pump	Diesel	0		The fire pump will be restricted to operate not more than 100 hr/yr.		0.5	G/B-HP-H		0.51	LB/H		0.5	G/B-HP-H	
*PA-0286	MOXIE ENERGY LLC/PATRIOT GENERATION PLT	1/31/2013	Fire Pump Engine - 460 BHP	Diesel	0				0.5	G/B-HP-H		0.51	LB/H		0.03	T/YR	
*PA-0291	HICKORY RUN ENERGY STATION	4/23/2013	EMERGENCY FIREWATER PUMP	ULTRA LOW SULFUR DISTILLATE	3.25	MMBTU/H	EMERGENCY FIREWATER PUMP (450 BHP)		2.58	LB/H		0.13	T/YR	12-MONTH ROLLING TOTAL	0		
*PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE	12/17/2013	Emergency Firewater Pump	Diesel	16	Gal/hr			0.09	T/YTR	BASED ON 12- MONTH ROLLING TOTAL	0			0		
*PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY PROJECT	4/10/2014	Emergency Diesel Fire Pump	ULSD Fuel Oil #2	335	bhp	The Emergency Fire Pump is rated at 335 BHP and limited to 500 hr/yr (emergency operations and testing and maintenance, combined).		2.6	G/B-HP-H		1.93	LB/H		0		
SC-0113	PYRAMAX CERAMICS, LLC	2/8/2012	FIRE PUMP	DIESEL	500	HP	THE CONSTRUCTION PERMIT AUTHORIZES THE CONSTRUCTION OF ONE (1) FIRE PUMP. THIS PROCESS AND POLLUTANT INFORMATION IS FOR THIS ONE SINGLE FIRE PUMP.	ENGINES CERTIFIED TO MEET NSPS. SUBPART III. HOURS OF OPERATION LIMITED TO 100 HOURS PER YEAR FOR MAINTENANCE AND TESTING.	3.5	G/KW-HR		0		0			
*WV-0025	MOUNDSVILLE COMBINED CYCLE POWER PLANT	11/21/2014	Fire Pump Engine	Diesel	251	HP	Limited to 100 Hours/year.		1.44	LB/H		0			0		
*WY-0070	CHEYENNE PRAIRIE GENERATING STATION	8/28/2012	Diesel Fire Pump Engine (EP16)	Ultra Low Sulfur Diesel	327	hp		EPA Tier 3 rated	0			0			0		



**Table D-E-2**  
**Carbon Monoxide (CO) RBL Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	2.6	G/B-HP-H	3-HR AVERAGE	0			0		
*MI-0399	DETROIT EDISON--MONROE	12/21/2010	4 Diesel-fired quench pumps	Diesel fuel	252	HP	Each pump engine is 252 HP. They are limited to emergency use and subject to NSPS Subpart IIII.	Good combustion practices.	2.6	G/B-HP-H	EACH PUMP; TEST PROTOCOL	0			0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	2.6	G/B-HP-H	3-HR AVERAGE	0			0		
	Astoria Energy LLC		Fire Pump	Ultra Low Sulfur Diesel				Clean Fuel	0.18	lb/MMBtu	1-hr average		LB/H	1-hour average			
	Catoctin Power LLC		Firewater Pump	Ultra Low Sulfur Diesel	370	kW		Good Combustion Practices	2.5	LB/H	3-hr average	100	hr/yr				
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBtu/hr		Pipeline quality NG	2.14	LB/H	1-hr average	2.6	g/b-hp-hr	1-hr average			
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBtu/hr		Pipeline quality NG	3.5	g/KW-hr	1-hr average						
	CPV Valley Energy Center Wawayanda, NY		Fire Pump	ULSD	325	bhp		Good combustion controls.	0.75	lb/MMBtu	1-hr average						
	Crocket Valley Energy Center		Fire Pump	ULSD	2.8	MMBtu/hr			0.19	lb/MMBtu		0.53	g/b-hp-hr				
	Hess Newark Energy Center		Fire Pump	ULSD	270	HP			1.55	LB/H		0.16	T/YR		2.60	G/HP-H	
	Woodbridge Energy Center		Fire Wate Pump	Ultra Low Sulfur Diesel					2.6	G/B-HP-H		1.81	LB/H				

**Table D-E-3**  
**Volatile Organic Compounds (VOC) RBLC Search - Fire Water Pump**  
**Invenery, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
LA-0276	BATON ROUGE JUNCTION FACILITY	12/15/2016	Fire Pump Engines (2 units)	Diesel	700	hp		Comply with standards of NSPS Subpart IIII	0			0			0		
*LA-0312	ST. JAMES METHANOL PLANT	6/30/2017	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	Diesel	650	horsepower	Operating hour limit: 100 hr/yr	Compliance with NNSPS Subpart IIII	0.13	LB/HR		0			0		
LA-0313	ST. CHARLES POWER STATION	8/31/2016	SCPS Emergency Diesel Firewater Pump 1	Diesel	282	HP		Good combustion practices	1.87	LB/H	HOURLY MAXIMUM	0.47	T/YR	ANNUAL MAXIMUM	0		
LA-0316	CAMERON LNG FACILITY	2/17/2017	firewater pump engines (8 units)	diesel	460	hp		Complying with 40 CFR 60 Subpart IIII	0			0			0		
MI-0423	INDECK NILES, LLC	1/4/2017	EUPENGINE (Emergency engine--diesel fire pump)	Diesel	1.66	MMBTU/H	A 260 brake horsepower (bhp) diesel-fueled emergency engine manufactured in 2011 or later	Good combustion practices	0.64	LB/H	TEST PROTOCOL	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (South Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a	Good combustion practices.	0.75	LB/H	HOURLY	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (North Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a	Good combustion practices	0.75	LB/H	HOURLY	0			0		
*MI-0435	BELLE RIVER COMBINED CYCLE	7/16/2018	EUPENGINE: Fire pump engine	Diesel	399	BHP	A 399 brake HP diesel-fueled emergency fire pump engine with a model year of 2011 or later,	State of the art combustion design.	0.13	LB/H	HOURLY	0			0		
TX-0799	BEAUMONT TERMINAL	6/8/2016	Fire pump engines	diesel	0			Equipment specifications and good combustion practices. Operation	0.0007	LB/HP-HR		0			0		
*VA-0325	GREENSVILLE POWER STATION	6/17/2016	DIESEL-FIRED WATER PUMP 376 bph (1)	DIESEL FUEL	0		FWP-1: 104.0 tons/year (12-month rolling total)	Good Combustion Practices/Maintenance	3	G/HP-H	PER HR	0			0		
*AK-0083	KENAI NITROGEN OPERATIONS	1/6/2015	Diesel Fired Well Pump	Diesel	2.7	MMBTU/hr	2.7 MMBtu/hr Diesel Fired Well Pump. Installed in 1966.	Limited Operation of 168 hr/yr.	0.36	LB/MMBTU		0			0		
IA-0084	ADM POLYMERS	11/30/2006	FIRE PUMP ENGINE	DIESEL FUEL	460	HP	THERE ARE 4 IDENTICAL FIRE PUMP ENGINES ASSOCIATED WITH THIS PROJECT. ALL OF THE UNITS HAVE THE SAME EMISSION LIMITS	GOOD COMBUSTION PRACTICES	3	G/B-HP-H	3 1-H TEST RUNS AVERAGE OF 3 STACK TEST RUNS	1.65	T/YR	ROLLING 12 MONTH TOTAL	0		
IA-0105	IOWA FERTILIZER COMPANY	10/26/2012	Fire Pump	diesel fuel	14	GAL/H	rated @ 235 KW	good combustion practices	0.25	G/KW-HR		0.03	T/YR	ROLLING 12 MONTH TOTAL	0		
ID-0018	LANGLEY GULCH POWER PLANT	6/25/2010	FIRE PUMP ENGINE	DIESEL	235	KW	COMPRESSION IGNITION INTERNAL COMBUSTION (C.I.C.E)	TIER 3 ENGINE-BASED, GOOD COMBUSTION PRACTICES (GCP)	4	G/KW-HR	NOX+NMHC	0			0		
*IL-0114	CRONUS CHEMICALS, LLC	9/5/2014	Firewater Pump Engine	distillate fuel oil	373	hp		Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	0.4	G/KW-HR		0			0		
*IN-0158	ST. JOSEPH ENEGRY CENTER, LLC	12/3/2012	TWO (2) FIREWATER PUMP DIESEL ENGINES	DIESEL	371	BHP, EACH	THE TWO FIREWATER PUMP ENGINES, IDENTIFIED AS FP01 AND FP02, EXHAUSTING THROUGH TWO (2) VENTS. OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	COMBUSTION DESIGN CONTROLS AND USAGE LIMITS	0.16	LB/H		500	N	HOURS OF OPERATIO YEARLY	0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP DIESEL-FIRED EMERGENCY	NO. 2 FUEL OIL	500	HP		GOOD COMBUSTION PRACTICES	0.141	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0179	OHIO VALLIEY RESOURCES, LLC	9/25/2013	WATER PUMP		481	BHP	ANNUAL OPERATION LIMITED TO 200 HR, OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.141	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP		500	HP		GOOD COMBUSTION PRACTICES	0.141	G/B-HP-H	3-HR AVERAGE	0			0		
LA-0192	CRESCENT CITY POWER	6/6/2005	DIESEL FIRED WATER PUMP				425 HP	GOOD ENGINE DESIGN AND PROPER OPERATING PRACTICES	0.05	LB/H	HOURLY MAXIMUM	0.001	T/YR	ANNUAL MAXIMUM	0.05	G/B-HP-H	ANNUAL AVERAGE
LA-0224	ARSENAL HILL POWER PLANT	3/20/2008	DFP DIESEL FIRE PUMP	DIESEL	310	HP	EQT-016	USE OF LOW-SULFUR FUELS, LIMITING OPERATING HOURS AND PROPER ENGINE MAINTENANCE	0.77	LB/H	MAX	0			0		
LA-0254	NINEMILE POINT ELECTRIC GENERATING PLANT	8/16/2011	EMERGENCY FIRE PUMP	DIESEL	350	HP		ULTRA LOW SULFUR DIESEL AND GOOD COMBUSTION PRACTICES	1	G/B-HP-H	ANNUAL AVERAGE	0			1	G/HP-H	ANNUAL AVERAGE
*MD-0044	COVE POINT LNG TERMINAL	6/9/2014	5 EMERGENCY FIRE WATER PUMP ENGINES	ULTRA LOW SULFUR DIESEL	350	HP	40 CFR 60, SUBPART IIII, ULTRA LOW- SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	USE ONLY ULSD, GOOD COMBUSTION PRACTICES, AND DESIGNED TO ACHIEVE EMISSION LIMIT	3	G/B-HP-H	NOX + NMHC	4	G/KW-HR	NOX + NMHC	0		
*MI-0410	THETFORD GENERATING STATION	7/25/2013	EU-FPENGINE: Diesel fuel fired emergency backup fire pump	diesel fuel	315	hp nameplate	This is a diesel fuel fired emergency backup fire mump. It has a capacity of 315 hp, nameplate, and uses diesel fuel ASTM D975 Grade 2-D S15.  Ultra low sulfur diesel fuel (15ppmw); 100 hours per year operation for maintenance and readiness testing. NSPS IIII and NESHAP ZZZZ.	Proper combustion design and ultra low sulfur diesel fuel.	0			0			0		
*MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/4/2013	Emergency Engine --Diesel Fire Pump (EUPENGINE)	Diesel	165	HP	A 165 horsepower (hp) diesel-fueled emergency engine manufactured in 2013, iwth a heat input of 1.35 MMBTU/hr. Powers a fire pump used for back up during an emergency (EUPENGINE). Restricted to 500 hours/year on a 12-month rolling time period basis.	Good combustion practices	0.001	LB/H	TEST PROTOCOL	0			0		

**Table D-E-3**  
**Volatile Organic Compounds (VOC) RBL Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*MS-0092	EMBERCLEAR GTL MS	5/8/2014	Eight 325 hp diesel firewater pumps	diesel	325	hp			0			0			0		
NC-0101	FORSYTH ENERGY PLANT	9/29/2005	IC ENGINE, EMERGENCY FIREWATER PUMP	DIESEL FUEL	11.4	MMBTU/H	usage limited to 200 h/yr		1.04	LB/H		0			0		
*NJ-0081	PSEG FOSSIL LLC SEWAREN GENERATING STATION	3/7/2014	Emergency diesel fire pump	Ultra Low Sulfur Distillate oil	0		The fire pump has a maximum heat input rate of 2.63 MMBtu/hr (approximately 250 HP) and is permitted for 100 hrs per year for testing and maintenance		0.119	LB/H		0			0		
OH-0317	OHIO RIVER CLEAN FUELS, LLC	11/20/2008	FIRE PUMP ENGINES (2)	DIESEL FUEL OIL	300	HP	SUBJECT TO NSPS SUBPART IIII "WILL INSTALL NON-RESETTABLE HOUR METER PRIOR TO STARTUP PER 40 CFR 60.4209(A)  DIESEL FUEL SHALL MEET THE REQUIREMENTS OF 40 CFR 80.510 AND 60.4207: SULFUR CONTENT OF 15 PPM MAXIMUM. CETANE INDEX OF 40 MINIMUM OR AROMATIC CONTENT OF 35 VOLUME % MAXIMUM	GOOD COMBUSTION PRACTICES AND GOOD ENGINE DESIGN	0.26	LB/H	FOR EACH ENGINE	0.07	T/YR	PER ROLLING 12-MONTH PERIOD	7.8	G/HP-H	FOR NMHC AND NOX COMBINED, 5% NMHC
*OH-0352	OREGON CLEAN ENERGY CENTER	6/18/2013	Emergency fire pump engine	diesel	300	HP	223.8 kW. Emergency fire pump engine restricted to 500 hours of operation per rolling 12 months.	Purchased certified to the standards in NSPS Subpart IIII	0.25	LB/H		0.06	T/YR	PER ROLLING 12-MONTHS	0		SEE NOTES
OK-0129	CHOUTEAU POWER PLANT	1/23/2009	EMERGENCY FIRE PUMP (267-HP DIESEL)	LOW SULFUR DIESEL	267	HP		GOOD COMBUSTION	0.66	LB/H		0			0		
PA-0278	MOXIE LIBERTY LLC/ASYLUM POWER PL T	10/10/2012	Fire Pump	Diesel	0		The fire pump will be restricted to operate not more than 100 hr/yr.		0.1	G/B-HP-H		0.1	LB/H		0		
*PA-0286	MOXIE ENERGY LLC/PATRIOT GENERATION PLT	1/31/2013	Fire Pump Engine - 460 BHP	Diesel	0				0.1	G/B-HP-H		0.1	LB/H		0.01	T/YR	

**Table D-E-3**  
**Volatile Organic Compounds (VOC) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBL/CID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*PA-0291	HICKORY RUN ENERGY STATION	4/23/2013	EMERGENCY FIREWATER PUMP	ULTRA LOW SULFUR DISTILLATE	3.25	MMBTU/H	EMERGENCY FIREWATER PUMP (450 BHP)		1.11	LB/H		0.06	T/YR	A 12-MONTH ROLLING TOTAL	0		
*PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE	12/17/2013	Emergency Firewater Pump	Diesel	16	Gal/hr			0.013	T/YR	BASED ON 12-MONTH ROLLING TOTAL	0			0		
*PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY PROJECT	4/10/2014	Emergency Diesel Fire Pump	ULSD Fuel Oil #2	0		The Emergency Fire Pump is rated at 335 BHP and limited to 500 hr/yr (emergency operations and testing and maintenance, combined).		0.15	G/B-HP-H		0.11	LB/H		0		
SC-0113	PYRAMAX CERAMICS, LLC	2/8/2012	FIRE PUMP	DIESEL	500	HP	THE CONSTRUCTION PERMIT AUTHORIZES THE CONSTRUCTION OF ONE (1) FIRE PUMP. THIS PROCESS AND POLLUTANT INFORMATION IS FOR THIS ONE SINGLE FIRE PUMP.	CERTIFIED ENGINES THAT COMPLY WITH NSPS, SUBPART III. HOURS OF OPERATION LIMITED TO 100 HOURS PER YEAR FOR MAINTENANCE AND TESTING.	4	G/KW-HR		0			0		
SC-0159	US10 FACILITY	7/9/2012	FIRE PUMPS, FIRE1, FIRE2, FIRE3	DIESEL	211	KW	THREE (3) 211 KW/282 BHP (EACH) EMERGENCY DIESEL FIRE PUMPS THAT ARE EXPECTED TO BE OPERATED UP TO 100 HOURS PER YEAR OR LESS FOR TESTING AND MAINTENANCE.	BACT HAS BEEN DETERMINED TO BE COMPLIANCE WITH NSPS, SUBPART III, 40 CFR60.4202 AND 40 CFR60.4205.	4	G/KW-HR		0			0		
*TX-0706	NATURAL GAS FRACTIONATION	1/23/2014	Emergency Engines	Ultra-low sulfur diesel	0		The process includes 1 emergency generator and 4 emergency firewater pump engines. The sulfur in the diesel fuel will meet the sulfur requirement of 15 ppm in 40 CFR 80.510(b).  The emissions from each engine result from weekly testing which will occur 52 hours a year for each engine.		0.03	T/YR		0			0		
*WV-0025	MOUNDSVILLE COMBINED CYCLE POWER PLANT	11/21/2014	Fire Pump Engine	Diesel	251	HP	Limited to 100 Hours/year.		0.17	LB/H		0			0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.141	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.141	G/B-HP-H	3-HR AVERAGE	0			0		
	Astoria Energy LLC		Fire Pump	Ultra Low Sulfur Diesel				Clean Fuel	0.11	lb/MMBtu	1-hr average						
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBtu/hr		Pipeline quality NG	2.44	LB/H	1-hr average	3	g/b-hp-hr	1-hr average			
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBtu/hr		Pipeline quality NG	4	g/KW-hr	1-hr average						
	CPV Valley Energy Center Wawayanda, NY		Fire Pump	ULSD	325	bhp		Good combustion controls.	0.3612	lb/MMBtu	1-hr average						
	Cricket Valley Energy Center		Fire Pump	ULSD	2.8	MMBtu/hr			0.035	lb/MMBtu		0.097	g/b-hp-hr				
	Tenaska Partners LLC		Fire Pump	ULSD	575	HP			0.11	LB/H		0.03	T/YR	12-month rolling			
	Hess Newark Energy Center		Fire Pump	ULSD	270	HP			0.22	LB/H		0.02	T/YR				
	Woodbridge Energy Center		Fire Wate Pump	Ultra Low Sulfur Diesel					0.074	lb/MMBtu		0.16	LB/H				

**Table D-E-4**  
**Particulate Matter (PM) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*AK-0084	DONLIN GOLD PROJECT	6/30/2017	Fire Pump Diesel Internal Combustion Engines	Diesel		252 hp	Three (3) 252 hp fire pump diesel internal combustion engines.	Clean Fuel and Good Combustion Practices	0.19	G/KW-HR	3-HOUR AVERAGE		0		0		
FL-0356	OKEECHOBEE CLEAN ENERGY CENTER	3/9/2016	One 422-hp emergency fire pump engine	ULSD		0	BACT limits equal to NSPS Subpart IIII limits. Will use IIII certified engine.	Use of clean fuel	0.2	G / KW-HR			0		0		
*FL-0363	DANIA BEACH ENERGY CENTER	12/4/2017	Emergency Fire Pump Engine (422 hp)	ULSD		0	Limits equal Subpart IIII limits	Certified engine	0.2	G / KWH			0		0		
MI-0421	GRAYLING PARTICLEBOARD	8/26/2016	Dieself fire pump engine (EUFIREPUMP in FGRICE)	Diesel		500 H/YR	One diesel fire pump engine rated at 400 KW (identified as EUFIREPUMP in FGRICE).	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	0.18	LB/H	TEST PROTOCOL WILL SPECIFY AVG TIME	0.2	G/KW-H	TEST PROTOCOL WILL SPECIFY AVG TIME	0		
MI-0423	INDECK NILES, LLC	1/4/2017	EUPENGINE (Emergency engine-- diesel fire pump)	Diesel		1.66 MMBTU/H	A 260 brake horsepower (bhp) diesel-fueled emergency engine manufactured in 2011 or later and a displacement of <10 liters/cylinder. Powers a fire pump used for a back up during an emergency (EUPENGINE). Restricted to 1 hour/day, except during emergency conditions and stack testing, and 100 hours/year on a 12-month rolling time period basis.	Good combustion practices and meeting NSPS Subpart IIII requirements.	0.15	G/BHP-H	TEST PROTOCOL WILL SPECIFY AVG TIME.		0		0		
MI-0425	GRAYLING PARTICLEBOARD	5/9/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	Diesel		500 H/YR	One diesel fire pump engine rated at 400 KW (EUFIREPUMP in FGRICE).	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18	LB/H	TEST PROTOCOL SHALL SPECIFY	0.2	G/KW-H	TEST PROTOCOL SHALL SPECIFY	0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (South Plant): Fire pump engine	Diesel		300 HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.15	G/BHP-H	HOURLY		0		0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (North Plant): Fire pump engine	Diesel		300 HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.15	G/BHP-H	HOURLY		0		0		
*MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	7/16/2018	EUPENGINE: Fire pump engine	Diesel		399 BHP	A 399 brake HP diesel-fueled emergency fire pump engine with a model year of 2011 or later, and a displacement of <10 liters/cylinder. The engine is an EPA Tier 3 certified engine subject to NSPS IIII.	State of the art combustion design	0.2	G/KW-H	HOURLY		0		0		
NJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	3/10/2016	Emergency Diesel Fire Pump	ULSD		100 H/YR	Maximum heat Input Rate = 2.6 MMBtu/hr	use of ULSD a clean burning fuel, and limited hours of operation	0.1	LB/H			0		0		
NY-0103	CRICKET VALLEY ENERGY CENTER	2/3/2016	Emergency fire pump	ultra low sulfur diesel		460 hp		Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.	0.087	G/BHP-H	1 H		0		0		
*PA-0310	CPV FAIRVIEW ENERGY CENTER	9/2/2016	Emergency Fire Pump Engine	ULSD		0	Sulfur content of diesel fuel shall not exceed 15 ppm, operation of engine shall not exceed 100 hr on a 12- month rolling basis.		0.15	G/BHP-HR			0		0		
*AK-0083	KENAI NITROGEN OPERATIONS	1/6/2015	Diesel Fired Well Pump	Diesel		2.7 MMBtu/hr	2.7 MMBtu/hr Diesel Fired Well Pump. Installed in 1966.	Limited Operation of 168 hr/yr.	0.31	LB/MMBTU			0		0		
CA-1191	VICTORVILLE 2 HYBRID POWER PROJECT	3/11/2010	EMERGENCY FIREWATER PUMP ENGINE	DIESEL		135 KW	135 KW (182 hp) IC Diesel-fired Emergency Firewater Pump Engine	OPERATIONAL RESTRICTION OF 50 HR/YR, OPERATE AS REQUIRED FOR FIRE SAFETY TESTING	0.2	G/KW-H		0.15	G/HP-H		0		
CA-1192	AVENAL ENERGY PROJECT	6/21/2011	EMERGENCY FIREWATER PUMP ENGINE	DIESEL		288 HP		USE ULTRA LOW SULFUR FUEL NOT TO EXCEED 15 PPMVD FUEL SULFUR, OPERATIONAL LIMIT OF 50 HRS/YR	0				0		0		
FL-0324	PALM BEACH RENEWABLE ENERGY PARK	12/23/2010	Two emergency diesel firewater pump engines			250 HP	The permittee is authorized to construct a 1,000 gallon tank to store ULSD fuel oil for use in the emergency diesel firewater pump engines.	demonstrate compliance in accordance with the procedures given in 40 CFR 60, Subpart IIII	0.15	G/HP-H			0		0		
*FL-0346	LAUDERDALE PLANT	4/22/2014	Emergency fire pump engine (300 HP)	USLD		29 MMBtu/hr	Emergency engine. BACT = NSPS IIII.	Good combustion practice	0.2	GRAM PER HP-HR			0		0		
IA-0105	IOWA FERTILIZER COMPANY	10/26/2012	Fire Pump	diesel fuel		14 GAL/H	rated @ 235 KW	good combustion practices	0.2	G/KW-H	AVERAGE OF 3 STACK TEST RUNS	0.03	TONS/YR	ROLLING 12 MONTH TOTAL	0		
ID-0018	LANGLEY GULCH POWER PLANT	6/25/2010	FIRE PUMP ENGINE	DIESEL		235 KW	COMPRESSION IGNITION INTERNAL COMBUSTION (CI ICE)	TIER 3 ENGINE-BASED, GOOD COMBUSTION PRACTICES (GCP)	0.2	G/KW-H			0		0		
*IL-0114	CRONUS CHEMICALS, LLC	9/5/2014	Firewater Pump Engine	distillate fuel oil		373 hp		Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	0.1	G/KW-HR			0		0		
*IN-0158	ST. JOSEPH ENERGY CENTER, LLC	12/3/2012	TWO (2) FIREWATER PUMP DIESEL ENGINES	DIESEL		371 BHP, EACH	THE TWO FIREWATER PUMP ENGINES, IDENTIFIED AS FP01 AND FP02, EXHAUSTING THROUGH TWO (2) VENTS.	COMBUSTION DESIGN CONTROLS AND USAGE LIMITS	0.15	G/HP-H			500 HOURS OF OPERATION	YEARLY	0		

**Table D-E-4**  
**Particulate Matter (PM) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP DIESEL-FIRED EMERGENCY WATER PUMP		500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.15	G/BHP-H	3-HR AVERAGE	0			0		
*IN-0179	OHIO VALLEY RESOURCES, LLC	9/25/2013	EMERGENCY WATER PUMP	NO. 2 FUEL OIL	481	BHP	ANNUAL OPERATION LIMITED TO 200 HR. OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP INTERNAL COMBUSTION ENGINE - EMERGENCY FIRE WATER PUMP		500	HP		GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
MD-0040	CPV ST CHARLES	11/12/2008	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	DIESEL	300	HP			0.15	G/HP-H		0			0		
*MD-0041	CPV ST. CHARLES	4/23/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA-LOW SULFUR	300	HP	40 CFR 60, SUBPART IIII, ULTRA LOW-SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	EXCLUSIVE USE OF ULTRA LOW SULFUR FUEL AND GOOD COMBUSTION PRACTICES	0.15	G/HP-H	N/A	0			0		
*MD-0042	WILDCAT POINT GENERATION FACILITY	4/8/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA LOW SULFUR	477	HP	40 CFR 60, SUBPART IIII, ULTRA LOW-SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES, LIMITED HOURS OF OPERATION, AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.15	G/HP-H		0.2	G/KW-H		0		
*MD-0044	COVE POINT LNG TERMINAL	6/9/2014	5 EMERGENCY FIRE WATER PUMP ENGINES	ULTRA LOW SULFUR	350	HP	40 CFR 60, SUBPART IIII, ULTRA LOW-SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.15	G/BHP-H		0.2	G/KW-H		0		
MI-0389	KARN WEADOCK GENERATING COMPLEX	12/29/2009	FIRE BOOSTER PUMP	ULTRA LOW SULFUR	40	KW	OPERATIONAL LIMITS 1 HR/DAY AND 500 HRS/YR FOR PM2.5 NAAQS.	ENGINE DESIGN AND OPERATION. 15 PPM SULFUR FUEL.	0.4	G/KW-H	TEST METHOD	0			0		
*MI-0400	WOLVERINE POWER	6/29/2011	Fire Pump	Diesel	420	HP	Maximum operation was based on 500 hours per year. This is a diesel fuel fired emergency backup fire pump. It has a capacity of 315 hp, nameplate, and uses diesel fuel ASTM D975 Grade 2-D S15.		0.15	G/HP-H	TEST PROTOCOL; BACT/SIP/NSPS	0			0		
*MI-0410	THETFORD GENERATING STATION	7/25/2013	EU-FPENGINE: Diesel fuel fired emergency backup fire pump	diesel fuel	315	hp nameplate	Ultra low sulfur diesel fuel (15ppmw); 100 hours per year operation for maintenance and readiness testing. NSPS IIII and NESHAP ZZZZ.	Proper combustion design and ultra low sulfur diesel fuel.	0.15	G/HP-H	TEST PROTOCOL WILL SPECIFY AVG. TIME	0			0		
*MI-0412	HOLLAND BOARD OF PUBLIC WORKS EAST 5TH STREET	12/4/2013	Emergency Engine -- Diesel Fire Pump (EUFENGINE)	Diesel	165	HP	A 165 horsepower (hp) diesel-fueled emergency engine manufactured in 2013, iwth a heat input of 1.35 MMBTU/hr. Powers a fire pump used for back up during an emergency (EUFENGINE). Restricted to 500 hours/year on a 12-month rolling time period basis.	Good combustion practices	0.22	G/HP-H	TEST PROTOCOL	0			0		
*MS-0092	EMBERCLEAR GTL MS	5/8/2014	Eight 325 hp diesel firewater pumps	diesel	325	hp			0	E-5		0			0		
NH-0018	BERLIN BIOPOWER	7/26/2010	EU03 FIRE PUMP ENGINE	DIESEL FUEL	2.27	MMBTU/H			0.3	LB/MMBTU	STACK TESTING	0			0		

**Table D-E-4**  
**Particulate Matter (PM) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*NJ-0081	PSEG FOSSIL LLC SEWAREN GENERATING STATION	3/7/2014	Emergency diesel fire pump	Ultra Low Sulfur	250	hp	The fire pump has a maximum heat input rate of 2.63 MMBtu/hr (approximately 250 HP) and is permitted for 100 hrs per year for testing and maintenance. The permittee shall select and install any of the turbine options listed below (or newer versions of these turbines if the Department determines that such newer versions achieve equivalent or better emissions rates and exhaust parameters) 1. General Electric 7FA (GE 7FA) 2. Siemens SGT6-5000F (Siemens F) 3. Mitsubishi M501G (Mitsubishi G) 4. Siemens SGT6-8000H (Siemens H) The emissions listed are for the Siemens SGT6-8000H unit.	Use of Ultra low sulfur distillate oil	0.15	G/B-HP-H		0.099	LB/H		0		
*PA-0291	HICKORY RUN ENERGY STATION	4/23/2013	COMBINED CYCLE UNITS #1 and #2	Natural Gas	3.4	MMCF/HR			18.5	LB/H W/ DUCT BURNER	11.0 LB/HR WITHOUT	62.89	T/YR 12- MONTH ROLLIN	INCLUDING STARTUP AND SHUTDOWN	0		
*PA-0291	HICKORY RUN ENERGY STATION	4/23/2013	EMERGENCY FIREWATER PUMP	ULTRA LOW S	3.25	MMBTU/H	EMERGENCY FIREWATER PUMP (450 BHP)		0.15	LB/H		0.01	T/YR	12-MONTH ROLLING TOTAL	0		
*PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY PROJECT	4/10/2014	Emergency Diesel Fire Pump	ULSD Fuel Oil	335	hp	The Emergency Fire Pump is rated at 335 BHP and limited to 500 hr/yr (emergency operations and testing and maintenance, combined).		0.15	G/B-HP-H		0.11	LB/H		0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
*MI-0399	DETROIT EDISON-- MONROE	12/21/2010	4 Diesel-fired quench pumps	Diesel fuel	252	HP	Each pump engine is 252 HP. They are limited to emergency use and subject to NSPS Subpart IIII.	Good combustion practices.	0.4	G/HP-H	QP1&QP2 EACH, TEST PROTOCOL	0.15	G/HP-H	QP3&QP4 EACH, TEST PROTOCOL	0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.15	G/BHP-H	3-HR AVERAGE	0			0		
	Astoria Energy LLC		Fire Pump	Ultra Low Sulfur Diesel				Clean Fuel	0.06	lb/MMBtu	1-hr average	0.11	LB/H	1-hour average			
	Catoctin Power LLC		Firewater Pump	Ultra Low Sulfur	370	kW		ULSD (<0.05% S); Good Combustion Practices	0.81	LB/H	3-hr average	100	hr/yr				
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBtu/hr		Pipeline quality NG	0.12	LB/H	1-hr average	0.15	g/b-hp-hr	1-hr average			
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBtu/hr		Pipeline quality NG	0.2	g/KW-hr	1-hr average						
	CPV Valley Energy Center Wawayanda, NY		Fire Pump	ULSD	325	bhp		Low sulfur fuel.	0.043	lb/MMBtu	1-hr average						
	Hess Newark Energy Center		Fire Pump	ULSD	270	HP			1.24	LB/H							

**Table D-E-5**  
**Particulate Matter, 10 Microns (PM<sub>10</sub>) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*AK-0084	DONLIN GOLD PROJECT	6/30/2017	Fire Pump Diesel Internal Combustion Engines	Diesel	252	hp	Three (3) 252 hp fire pump diesel internal combustion engines.	Clean Fuel and Good Combustion Practices	0.19	G/KW-HR	3-HOUR AVERAGE	0			0		
*LA-0312	ST. JAMES METHANOL PLANT	6/30/2017	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	Diesel	650	horsepower	Operating hour limit: 100 hr/yr	Compliance with NSPS Subpart IIII	0.15	LB/HR		0			0		
LA-0313	ST. CHARLES POWER STATION	8/31/2016	SCPS Emergency Diesel Firewater Pump 1	Diesel	282	HP		Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	0.09	LB/H	HOURLY MAXIMUM	0.02	T/YR	ANNUAL MAXIMUM	0.15	G/BHP-H	
LA-0316	CAMERON LNG FACILITY	2/17/2017	firewater pump engines (8 units)	diesel	460	hp		Complying with 40 CFR 60 Subpart IIII	0			0			0		
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	Firewater pump Engines (4 units)	diesel	896	hp (each)		complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0			0			0		
LA-0323	MONSANTO LULING PLANT	1/9/2017	Fire Water Diesel Pump No. 3 Engine	Diesel Fuel	600	hp	Emergency engine with a limit of 100 hours/yr on operating hours for ready testing.	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0			0			0		
LA-0323	MONSANTO LULING PLANT	1/9/2017	Fire Water Diesel Pump No. 4 Engine	Diesel Fuel	600	hp	Emergency Engine limited to 100 hours/yr for ready tests	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0			0			0		
MI-0421	GRAYLING PARTICLEBOARD	8/26/2016	Dieisel fire pump engine (EUFIREPUMP in FGRICE)	Diesel	500	H/YR	One diesel fire pump engine rated at 400 KW (identified as EUFIREPUMP in FGRICE)	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18	LB/H	TEST PROTOCOL WILL SPECIFY AVG TIME	0			0		
MI-0423	INDECK NILES, LLC	1/4/2017	EUPENGINE (Emergency engine--diesel fire pump)	Diesel	1.66	MMBTU/H	A 260 brake horsepower (bhp) diesel-fueled emergency engine manufactured in 2011 or later and a displacement of <10 liters/cylinder. Powers a fire pump used for a back up during an emergency (EUPENGINE). Restricted to 1 hour/day, except during emergency conditions and stack testing, and 100 hours/year on a 12-month rolling time period basis.	Good combustion practices	0.57	LB/H	HOURLY	0			0		
MI-0425	GRAYLING PARTICLEBOARD	5/9/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	Diesel	500	H/YR	One diesel fire pump engine rated at 400 KW (EUFIREPUMP in FGRICE).	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18	LB/H	TEST PROTOCOL SHALL SPECIFY	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (South Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.66	LB/H	HOURLY	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (North Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.66	LB/H	HOURLY	0			0		
*MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	7/16/2018	EUPENGINE: Fire pump engine	Diesel	399	BHP	A 399 brake HP diesel-fueled emergency fire pump engine with a model year of 2011 or later, and a displacement of <10 liters/cylinder. The engine is an EPA Tier 3 certified engine subject to NSPS IIII.	State of the art combustion design.	0.13	LB/H	HOURLY	0			0		
NJ-0084	PS&C FOSSIL LLC SEAWARD GENERATING STATION	3/10/2016	Emergency Diesel Fire Pump	ULSD	100	H/YR	Maximum heat input Rate = 2.6 MMBtu/hr	use of ULSD a clean burning fuel, and limited hours of operation	0.1	LB/H		0			0		
*VA-0325	GREENSVILLE POWER STATION	6/17/2016	DIESEL-FIRED WATER PUMP 376 bhp (1)	DIESEL FUEL	0		FWP-1: 104.0 tons/year (12-month rolling total)	Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.3	G/HP-H	PER HR	0			0		
*AK-0083	KENAI NITROGEN OPERATIONS	1/6/2015	Diesel Fired Well Pump	Diesel	2.7	MMBTu/hr	2.7 MMBtu/hr Diesel Fired Well Pump. Installed in 1966.	Limited Operation of 168 hr/yr.	0.31	LB/MMBTU		0			0		
CA-1144	BLYTHE ENERGY PROJECT II	4/25/2007	FIRE PUMP	DIESEL	303	HP			0.1	LB/H		0			0		
CA-1192	AVENAL ENERGY PROJECT	6/21/2011	EMERGENCY FIREWATER PUMP ENGINE	DIESEL	288	HP		USE ULTRA LOW SULFUR FUEL NOT TO EXCEED 15 PPMVD FUEL SULFUR, OPERATIONAL LIMIT OF 50 HRS/YR	0			0			0		
IA-0105	IOWA FERTILIZER COMPANY	10/26/2012	Fire Pump	diesel fuel	14	GAL/H	rated @ 235 KW	good combustion practices	0.2	G/KW-HR	AVERAGE OF 3 STACK TEST RUNS	0.03	T/YR	ROLLING 12 MONTH TOTAL	0		



**Table D-E-5**  
**Particulate Matter, 10 Microns (PM<sub>10</sub>) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*IL-0114	CRONUS CHEMICALS, LLC	9/5/2014	Firewater Pump Engine	distillate fuel oil	373	hp		Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	0.1	G/KW-HR		0			0		
*IN-0158	ST. JOSEPH ENEGRY CENTER, LLC	12/3/2012	TWO (2) FIREWATER PUMP DIESEL ENGINES	DIESEL	371	BHP, EACH	THE TWO FIREWATER PUMP ENGINES, IDENTIFIED AS FP01 AND FP02, EXHAUSTING THROUGH TWO (2) VENTS.	COMBUSTION DESIGN CONTROLS AND USAGE LIMITS	0.15	G/B-HP-H		500	HOURS OF OPERATION	YEARLY	0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP DIESEL-FIRED EMERGENCY WATER PUMP	NO. 2 FUEL OIL	500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0179	OHIO VALLEY RESOURCES, LLC	9/25/2013	FIRE PUMP DIESEL-FIRED EMERGENCY WATER PUMP	NO. 2 FUEL OIL	481	BHP	ANNUAL OPERATION LIMITED TO 200 HR.	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP		500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
LA-0192	CRESCENT CITY POWER	6/6/2005	DIESEL FIRED WATER PUMP				425 HP	GOOD ENGINE DESIGN AND PROPER OPERATING PRACTICES	0.14	LB/H	HOURLY MAXIMUM	0.004	T/YR	ANNUAL MAXIMUM	0.15	G/B-HP-H	ANNUAL AVERAGE
LA-0224	ARSENAL HILL POWER PLANT	3/20/2008	DFP DIESEL FIRE PUMP	DIESEL	310	HP		USE OF LOW-SULFUR FUELS, LIMITING OPERATING HOURS AND PROPER ENGINE MAINTENANCE	0.68	LB/H	MAX	0			0		
LA-0251	FLOPAM INC. FACILITY	4/26/2011	Fire Pump Engines - 2 units	diesel	444	hp	each		0.01	LB/H		0.01	T/YR		0.15	G/HP-H	
LA-0254	NINEMILE POINT ELECTRIC GENERATING PLANT	8/16/2011	EMERGENCY FIRE PUMP	DIESEL	350	HP		ULTRA LOW SULFUR DIESEL AND GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	ANNUAL AVERAGE	0.15	G/B-HP-H	ANNUAL AVERAGE			
*MA-0039	SALEM HARBOR REDEVELOPMENT	1/30/2014	Fire Pump Engine	ULSD	2.7	MMBtu/hr	if not 300 hours of operation per 12-month rolling period S in ULSD: 8%±0.0015% by weight		0.15	G/B-HP-H	1 HR BLOCK AVERAGE	0.12	LB/H	1 HR BLOCK AVERAGE	0		
MD-0040	CPV ST CHARLES	11/12/2008	INTERNAL COMBUSTION ENGINE - EMERGENCY FIRE WATER PUMP	DIESEL	300	HP			0.15	G/B-HP-H		0			0		
*MD-0041	CPV ST. CHARLES	4/23/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA-LOW SULFUR DIESEL	300	HP	40 CFR 60, SUBPART IIII, ULTRA LOW SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	EXCLUSIVE USE OF ULTRA LOW SULFUR FUEL AND GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	N/A	0			0		
*MD-0042	WILDCAT POINT GENERATION FACILITY	4/8/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA LOW SULFUR DIESEL	477	HP	40 CFR 60, SUBPART IIII, ULTRA LOW SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES, LIMITED HOURS OF OPERATION, AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.15	G/B-HP-H		0.23	G/KW-HR		0		
*MD-0043	PERRYMAN GENERATING STATION	7/1/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRAL LOW SULFUR DIESEL	350	HP	40 CFR 60, SUBPART IIII, GOOD COMBUSTION PRACTICES	GOOD COMBUSTION PRACTICES, LIMITED HOURS OF OPERATION, AND EXCLUSIVE USE OF ULSD	0.17	G/B-HP-H	FILTERABLE + CONDENSIBLE	0.15	G/B-HP-H	FILTERABLE	0		
*MD-0044	COVE POINT LNG TERMINAL	6/9/2014	5 EMERGENCY FIRE WATER PUMP ENGINES	ULTRA LOW SULFUR DIESEL	350	HP	40 CFR 60, SUBPART IIII, ULTRA LOW SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.17	G/B-HP-H		0.23	G/KW-HR		0		
MI-0389	KARN WEADOCK GENERATING COMPLEX	12/29/2009	FIRE BOOSTER PUMP	ULTRA LOW SULFUR DIESEL	40	KW	OPERATIONAL LIMITS 1 HR/DAY AND 500 HRS/YR FOR PM2.5 NAAQS.	ENGINE DESIGN AND OPERATION. 15 PPM SULFUR FUEL.	0.31	LB/MMBTU	TEST METHOD	0			0		
*MI-0400	WOLVERINE POWER	6/29/2011	Fire Pump	Diesel	420	HP	Maximum operation was based on 500 hours per year.		0.14	LB/H	TEST PROTOCOL; BACT	0			0		
*MI-0410	THETFORD GENERATING STATION	7/25/2013	EU-FPENGINE: Diesel fuel fired emergency backup fire pump	diesel fuel	315	hp nameplate	This is a diesel fuel fired emergency backup fire pump. It has a capacity of 315 hp, nameplate, and uses diesel fuel ASTM D975 Grade 2-D S15.  Ultra low sulfur diesel fuel (15ppmw); 100 hours per year operation for maintenance and readiness testing. NSPS IIII and NESHAP ZZZZ.	Proper combustion design and ultra low sulfur diesel fuel	0.6	LB/H	TEST PROTOCOL WILL SPECIFY AVG. TIME	0			0		

**Table D-E-5**  
**Particulate Matter, 10 Microns (PM<sub>10</sub>) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET EMERGENCY GTL	12/4/2013	Emergency Engine -- Diesel Fire Pump (EUPENGINE)	Diesel	165	HP	A 165 horsepower (hp) diesel-fueled emergency engine manufactured in 2013, with a heat input of 1.35 MMBTU/hr. Powers a fire pump used for back up during an emergency (EUPENGINE). Restricted to 500 hours/year on a 12- month rolling time period basis.	Good combustion practices	0.09	LB/MMBTU	TEST PROTOCOL	0			0		
*MS-0092	MS	5/8/2014	Eight 325 hp diesel firewater pumps	diesel	325	hp			0			0			0		
NC-0101	FORSYTH ENERGY PLANT	9/29/2005	IC ENGINE, EMERGENCY FIREWATER PUMP	DIESEL FUEL	11.4	MMBTU/H	usage limited to 200 h/yr		1.14	LB/H		0			0		
*NJ-0081	PSEG FOSSIL LLC SEWAREN GENERATING STATION	3/7/2014	Emergency diesel fire pump	Ultra Low Sulfur Distillate oil	0		The fire pump has a maximum heat input rate of 2.63 MMBtu/hr (approximately 250 HP) and is permitted for 100 hrs per year for testing and maintenance	Use of ultra low sulfur distillate oil	0.15	G/B-HP-H		0.099	LB/H		0		
OH-0317	OHIO RIVER CLEAN FUELS, LLC	11/20/2008	FIRE PUMP ENGINES (2)	DIESEL FUEL OIL	300	HP	SUBJECT TO NSPS SUBPART IIII. WILL INSTALL NON-RESETTABLE HOUR METER PRIOR TO STARTUP PER 40 CFR 60.4209(A)  DIESEL FUEL SHALL MEET THE REQUIREMENTS OF 40 CFR 80.510 AND 60.4207: SULFUR CONTENT OF 15 PPM MAXIMUM, CETANE INDEX OF 40 MINIMUM OR AROMATIC CONTENT OF 35 VOLUME % MAXIMUM	GOOD COMBUSTION PRACTICES AND GOOD ENGINE DESIGN	0.27	LB/H	FOR EACH ENGINE	0.07	T/YR	PER ROLLING 12- MONTH PERIOD	0.4	G/HP-H	FROM TABLE 4 OF SUBPART IIII
*OH-0352	OREGON CLEAN ENERGY CENTER	6/18/2013	Emergency fire pump engine	diesel	300	HP	223.8 kW. Emergency fire pump engine restricted to 500 hours of operation per rolling 12 months.	Purchased certified to the standards in NSPS Subpart IIII	0.1	LB/H		0.025	T/YR	PER ROLLING 12- MONTHS	0		SEE NOTES
OK-0129	CHOUTEAU POWER PLANT	1/23/2009	EMERGENCY FIRE PUMP (267-HP DIESEL)	LOW SULFUR DIESEL	267	HP			0.24	LB/H		0.4	G/B-HP-H	NSPS	0		
PA-0278	MOXIE LIBERTY LLC/ASYLUM POWER PL T	10/10/2012	Fire Pump	Diesel	0		The fire pump will be restricted to operate not more than 100 hr/yr.		0.09	G/B-HP-H		0.09	LB/H		0		
*PA-0286	MOXIE ENERGY LLC/PATRIOT GENERATION PLT	1/31/2013	Fire Pump Engine - 460 BHP	Diesel	0				0.09	G/B-HP-H		0.09	LB/H		0.01	T/YR	
*PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE ENERGY ANSWERS	12/17/2013	Emergency Firewater Pump	Diesel	16	Gal/hr			0.005	T/YR	BASED ON 12- MONTH ROLLING TOTAL	0			0		
*PR-0009	ARECIBO PUERTO RICO RENEWABLE ENERGY PROJECT	4/10/2014	Emergency Diesel Fire Pump	ULSD Fuel Oil #2	0		The Emergency Fire Pump is rated at 335 BHP and limited to 500 hr/yr (emergency operations and testing and maintenance, combined).		0.15	G/B-HP-H		0.11	LB/H		0		
VA-0319	GATEWAY COGENERATION 1, LLC - SMART WATER PROJECT	8/27/2012	FIRE WATER PUMP	diesel (ultra low sulfur)	1.86	MMBTU/H	500 H/Yr operation Each pump engine is 252 HP. They are limited to emergency use and subject to NSPS Subpart IIII.	Clean burning ULSD fuel and good combustion practices	0.15	G/B-HP-H		0			0		
*MI-0399	DETROIT EDISON-- MONROE	12/21/2010	4 Diesel-fired quench pumps	Diesel fuel	252	HP		Good combustion practices.	0.4	G/B-HP-H	QP1&QP2, EACH; TEST PROTOCOL	0.15	G/B-HP-H	QP3&QP4, EACH; TEST PROTOCOL	0		
	Astoria Energy LLC		Fire Pump	Ultra Low Sulfur Diesel				Clean Fuel	0.06	lb/MMBTU	1-hr average		LB/H	1-hour average			
	Catocin Power LLC		Firewater Pump	Ultra Low Sulfur Diesel	370	kW		ULSD (<0.05% S); Good Combustion Practices	0.81	LB/H	3-hr average	100	hr/yr				
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBTu/hr		Pipeline quality NG	0.12	LB/H	1-hr average	0.15	g/b-hp-hr	1-hr average			
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBTu/hr		Pipeline quality NG	0.2	g/KW-hr	1-hr average						
	CPV Valley Energy Center Wawayanda, NY		Fire Pump	ULSD	325	bhp		Low sulfur fuel.	0.043	lb/MMBTU	1-hr average						
	Cricket Valley Energy Center		Fire Pump	ULSD	2.8	MMBTu/hr			0.032	lb/MMBTU		0.087	g/b-hp-hr				
	Pioneer Valley Energy Center		Fire Pump	ULSD	270	HP			0.2	g/KW-hr							
	Hess Newark Energy Center		Fire Pump	ULSD	270	HP			0.09	LB/H		0.009	T/YR				

**Table D-E-6**  
**Particulate Matter, 2.5 Microns (PM<sub>2.5</sub>) RBL Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*AK-0084	DONLIN GOLD PROJECT	6/30/2017	Fire Pump Diesel Internal Combustion Engines	Diesel	252	hp	Three (3) 252 hp fire pump diesel internal combustion engines.	Clean Fuel and Good Combustion Practices	0.19	G/KW-HR	3-HOUR AVERAGE	0			0		
*LA-0312	ST. JAMES METHANOL PLANT	6/30/2017	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	Diesel	650	horsepower	Operating hour limit: 100 hr/yr	Compliance with NSPS IIII	0.15	LB/HR		0			0		
LA-0313	ST. CHARLES POWER STATION	8/31/2016	SCPS Emergency Diesel Firewater Pump 1	Diesel	282	HP		Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	0.09	LB/H	HOURLY MAXIMUM	0.02	T/YR	ANNUAL MAXIMUM	0		
LA-0316	CAMERON LNG FACILITY	2/17/2017	firewater pump engines (8 units)	diesel	460	hp		Complying with 40 CFR 60 Subpart IIII	0			0			0		
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	Firewater pump Engines (4 units)	diesel	896	hp (each)		complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0			0			0		
LA-0323	MONSANTO LULING PLANT	1/9/2017	Fire Water Diesel Pump No. 3 Engine	Diesel Fuel	600	hp	Emergency engine with a limit of 100 hours/yr on operating hours for ready testing.	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0			0			0		
LA-0323	MONSANTO LULING PLANT	1/9/2017	Fire Water Diesel Pump No. 4 Engine	Diesel Fuel	600	hp	Emergency Engine limited to 100 hours/yr for ready tests	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0			0			0		
MI-0421	GRAYLING PARTICLEBOARD	8/26/2016	Diesel fire pump engine (EUFIREPUMP in FGRICE)	Diesel	500	H/YR	One diesel fire pump engine rated at 400 KW (identified as EUFIREPUMP in FGRICE).	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18	LB/H	TEST PROTOCOL WILL SPECIFY AVG TIME	0			0		
MI-0423	INDECK NILES, LLC	1/4/2017	EUPENGINE (Emergency engine--diesel fire pump)	Diesel	1.66	MMBTU/H	A 260 brake horsepower (bhp) diesel-fueled emergency engine manufactured in 2011 or later and a displacement of <10 liters/cylinder. Powers a fire pump used for a back up during an emergency (EUPENGINE). Restricted to 1 hour/day, except during emergency conditions and stack testing, and 100 hours/year on a 12-month rolling time period basis.	Good combustion practices	0.57	LB/H	HOURLY	0			0		
MI-0425	GRAYLING PARTICLEBOARD	5/9/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	Diesel	500	H/YR	One diesel fire pump engine rated at 400 KW (EUFIREPUMP in FGRICE).	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18	LB/H	TEST PROTOCOL SHALL SPECIFY	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (South Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.66	LB/H	HOURLY	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (North Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.66	LB/H	HOURLY	0			0		
*MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	7/16/2018	EUPENGINE: Fire pump engine	Diesel	399	BHP	A 399 brake HP diesel-fueled emergency fire pump engine with a model year of 2011 or later, and a displacement of <10 liters/cylinder. The engine is an EPA Tier 3 certified engine subject to NSPS IIII.	State of the art combustion design.	0.13	LB/H	HOURLY	0			0		
NJ-0084	PSEG FOSSIL LLC SEWAREN GENERATING STATION	3/10/2016	Emergency Diesel Fire Pump	ULSD	100	H/YR	Maximum heat input Rate = 2.6 MMBtu/hr	use of ULSD a clean burning fuel, and limited hours of operation	0.1	LB/H		0			0		
*VA-0325	GREENSVILLE POWER STATION	6/17/2016	DIESEL-FIRED WATER PUMP 376 bph (1)	DIESEL FUEL	0		FWP-1: 104.0 tons/year (12-month rolling total)	Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.3	G/HP-H	HR	0			0		
*AK-0083	KENAI NITROGEN OPERATIONS	1/6/2015	Diesel Fired Well Pump	Diesel	2.7	MMBTu/hr	2.7 MMBtu/hr Diesel Fired Well Pump. Installed in 1966.	Limited Operation of 168 hr/yr.	0.31	LB/MMBTU		0			0		
CA-1191	VICTORVILLE 2 HYBRID POWER PROJECT	3/11/2010	EMERGENCY FIREWATER PUMP ENGINE	DIESEL	135	KW	135 KW (182 hp) IC Diesel-fired Emergency Firewater Pump Engine	OPERATIONAL RESTRICTION OF 50 HR/YR, OPERATE AS REQUIRED FOR FIRE SAFETY TESTING	0.2	G/KW-HR		0.15	G/B-HP-H		0		
IA-0105	IOWA FERTILIZER COMPANY	10/26/2012	Fire Pump	diesel fuel	14	GAL/H	rated @ 235 KW	good combustion practices	0.2	G/KW-HR	AVERAGE OF 3 STACK TEST RUNS	0.03	T/YR	ROLLING 12 MONTH TOTAL	0		
*IL-0114	CRONUS CHEMICALS, LLC	9/5/2014	Firewater Pump Engine	distillate fuel oil	373	hp		Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	0.1	G/KW-HR		0			0		

**Table D-E-6**  
**Particulate Matter, 2.5 Microns (PM<sub>2.5</sub>) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*IN-0158	ST. JOSEPH ENERGY CENTER, LLC	12/3/2012	TWO (2) FIREWATER PUMP DIESEL ENGINES	DIESEL	371	BHP, EACH	THE TWO FIREWATER PUMP ENGINES, IDENTIFIED AS FP01 AND FP02, EXHAUSTING THROUGH TWO (2) VENTS.	COMBUSTION DESIGN CONTROLS AND USAGE LIMITS	0.15	G/B-HP-H	3 HOURS		HOURS OF OPERATION	YEARLY		0	
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP		500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0179	OHIO VALLEY RESOURCES, LLC	9/25/2013	DIESEL-FIRED EMERGENCY WATER PUMP	NO. 2 FUEL OIL	481	BHP	ANNUAL OPERATION LIMITED TO 200 HR.	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP		500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
LA-0254	NINEMILE POINT ELECTRIC GENERATING PLANT	8/16/2011	EMERGENCY FIRE PUMP	DIESEL	350	HP		ULTRA LOW SULFUR DIESEL AND GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	ANNUAL AVERAGE	0			0.15	G/HP-H	ANNUAL AVERAGE
*MA-0039	SALEM HARBOR STATION REDEVELOPME T	1/30/2014	Fire Pump Engine	ULSD	2.7	MMBtu/hr	8%w 300 hours of operation per 12-month rolling period S in ULSD: 8%w0.0015% by weight		0.15	G/B-HP-H	1 HR BLOCK AVERAGE	0.12	LB/H	1 HR BLOCK AVERAGE	0		
MD-0040	CPV ST CHARLES	11/12/2008	INTERNAL COMBUSTION ENGINE - EMERGENCY FIRE WATER PUMP	DIESEL	300	HP			0.15	G/B-HP-H		0			0		
*MD-0042	WILDCAT POINT GENERATION FACILITY	4/8/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA LOW SULFUR DIESEL	477	HP	40 CFR 60, SUBPART IIII, ULTRA LOW SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	EXCLUSIVE USE OF ULSD FUEL, GOOD COMBUSTION PRACTICES, LIMITED HOURS OF OPERATION, AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.15	G/B-HP-H		0.23	G/KW-H		0		
*MD-0044	COVE POINT LNG TERMINAL	6/9/2014	5 EMERGENCY FIRE WATER PUMP ENGINES	ULTRA LOW SULFUR DIESEL	350	HP	40 CFR 60, SUBPART IIII, ULTRA LOW SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	GOOD COMBUSTION PRACTICES AND DESIGNED TO ACHIEVE EMISSION LIMITS	0.17	G/B-HP-H		0.23	G/KW-H		0		
*MI-0400	WOLVERINE POWER	6/29/2011	Fire Pump	Diesel	420	HP	Maximum operation was based on 500 hours per year.		0.14	LB/H	TEST PROTOCOL; BACT	0			0		
*MI-0410	THETFORD GENERATING STATION	7/25/2013	EU-FPENGINE: Diesel fuel fired emergency backup fire pump	diesel fuel	315	hp nameplate	This is a diesel fuel fired emergency backup fire mump. It has a capacity of 315 hp, nameplate, and uses diesel fuel ASTM D975 Grade 2-D S15.  Ultra low sulfur diesel fuel (15ppmw); 100 hours per year operation for maintenance and readiness testing. NSPS III and NESHAP ZZZZ.	Proper combustion design and ultra low sulfur diesel fuel.	0.6	LB/H	TEST PROTOCOL WILL SPECIFY AVG. TIME	0			0		
*MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/4/2013	Emergency Engine -- Diesel Fire Pump (EUFENGINE)	Diesel	165	HP	A 165 horsepower (hp) diesel-fueled emergency engine manufactured in 2013, with a heat input of 1.35 MMBTU/hr. Powers a fire pump used for back up during an emergency (EUFENGINE). Restricted to 500 hours/year on a 12- month rolling time period basis.	Good combustion practices	0.09	LB/MMBTU	TEST PROTOCOL	0			0		
*MS-0092	EMBERCLEAR GTL MS	5/8/2014	firewater pumps	diesel	325	hp			0			0			0		
*NJ-0081	PSEG FOSSIL LLC SEWAREN GENERATING STATION	3/7/2014	Emergency diesel fire pump	Ultra Low Sulfur Distillate oil	0		The fire pump has a maximum heat input rate of 2.63 MMBtu/hr (approximately 250 HP) and is permitted for 100 hrs per year for testing and maintenance	Use of Ultra low sulfur distillate oil	0.15	G/B-HP-H		0.099	LB/H		0		
PA-0278	MOXIE LIBERTY LLC/ASYLUM POWER PL T	10/10/2012	Fire Pump	Diesel	0		The fire pump will be restricted to operate not more than 100 hr/yr.		0.09	G/B-HP-H		0.09	LB/H		0		
*PA-0286	MOXIE ENERGY LLC/PATRIOT GENERATION PLT	1/31/2013	Fire Pump Engine - 460 BHP	Diesel	0				0.09	G/B-HP-H		0.09	LB/H		0.01	T/YR	

**Table D-E-6**  
**Particulate Matter, 2.5 Microns (PM<sub>2.5</sub>) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNE E	12/17/2013	Emergency Firewater Pump	Diesel	16	Gal/hr			0.005	T/YR	BASED ON 12- MONTH ROLLING TOTAL	0			0		
*PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY PROJECT	4/10/2014	Emergency Diesel Fire Pump	ULSD Fuel Oil #2	0		The Emergency Fire Pump is rated at 335 BHP and limited to 500 hr/yr (emergency operations and testing and maintenance, combined).		0.15	G/B-HP-H		0.11	LB/H		0		
VA-0319	GATEWAY COGENERATION I, LLC - SMART WATER PROJECT	8/27/2012	FIRE WATER PUMP	diesel (ultra low sulfur)	1.86	MMBTU/H	500 H/Yr operation	Clean burning ULSD fuel and good combustion practices.	0.15	G/B-HP-H		0			0		
*WV-0025	MOUNDSVILLE COMBINED CYCLE POWER PLANT	11/21/2014	Fire Pump Engine	Diesel	251	HP	Limited to 100 Hours/year.		0			0			0.15	G/HP-HR	
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY. WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
*MI-0399	DETROIT EDISON-- MONROE	12/21/2010	4 Diesel-fired quench pumps	Diesel fuel	252	HP	Each pump engine is 252 HP. They are limited to emergency use and subject to NSPS Subpart IIII.	Good combustion practices	0.4	G/B-HP-H	QP1&QP2 EACH; TEST PROTOCOL	0.15	G/B-HP-H	QP3&QP4 EACH; TEST PROTOCOL	0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY. WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	0.15	G/B-HP-H	3-HR AVERAGE	0			0		
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBTu/hr		Pipeline quality NG	0.12	LB/H	1-hr average	0.15	g/b-hp-hr	1-hr average			
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBTu/hr		Pipeline quality NG	0.2	g/KW-hr	1-hr average						
	CPV Valley Energy Center Wawayanda, NY		Fire Pump	ULSD	325	bhp		Low sulfur fuel.	0.043	lb/MMBTu	1-hr average						
	Crocket Valley Energy Center		Fire Pump	ULSD	2.8	MMBTu/hr			0.032	lb/MMBTu		0.087	g/b-hp-hr				

**Table D-E-7**  
**Sulfur Dioxide (SO<sub>2</sub>) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
FL-0356	OKEECHOBEE CLEAN ENERGY CENTER	3/9/2016	One 422-hp emergency fire pump engine	ULSD	0		BACT limits equal to NSPS Subpart III limits. Will use III certified engine.	Use of ULSD	0.0015	% S IN ULSD		0			0		
*FL-0363	DANIA BEACH ENERGY CENTER	12/4/2017	Emergency Fire Pump Engine (422 hp)	ULSD	0		Limits equal Subpart III limits	Clean fuel	15	PPM S IN FUEL		0			0		
MI-0423	INDECK NILES, LLC	1/4/2017	EUPENGINE (Emergency engine-- diesel fire pump)	Diesel	1.66	MMBTU/H	A 260 brake horsepower (bhp) diesel-fueled emergency engine manufactured in 2011 or later and a displacement of <10 liters/cylinder. Powers a fire pump used for a back up during an emergency (EUPENGINE). Restricted to 1 hour/day, except during emergency conditions and stack testing, and 100 hours/year on a 12-month rolling time period basis.	Good combustion practices and meeting NSPS Subpart III requirements.	15	PPM	FUEL SUP. CERT. RECORDS OR SAMPLE TEST	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (South Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Good combustion practices and meeting NSPS Subpart III requirements.	15	PPM	FUEL SUPPLIER RECORDS OR FUEL SAMPL DATA	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (North Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Good combustion practices and meeting NSPS Subpart III requirements.	15	PPM	FUEL SUPPLIER RECORDS	0			0		
*VA-0325	GREENSVILLE POWER STATION	6/17/2016	DIESEL-FIRED WATER PUMP 376 bph (1)	DIESEL FUEL	0		FWP-1: 104.0 tons/year (12-month rolling total)	Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.0015	LB/MMBTU		0			0		
FL-0324	PALM BEACH RENEWABLE ENERGY PARK	12/23/2010	Two emergency diesel firewater pump engines		250	HP	The permittee is authorized to construct a 1,000 gallon tank to store ULSD fuel oil for use in the emergency diesel firewater pump engines.		0.0015	% SULFUR PPM SULFUR IN FUEL		0			0		
*FL-0346	LAUDERDALE PLANT	4/22/2014	Emergency fire pump engine (300 HP) TWO (2) FIREWATER PUMP DIESEL ENGINES	USLD	29	MMBTU/hr	Emergency engine. BACT = NSPS III.	Good combustion practice and ULSD	15			0			0		
*IN-0158	ST. JOSEPH ENEGRY CENTER, LLC	12/3/2012		DIESEL	371	BHP, EACH	THE TWO FIREWATER PUMP ENGINES, IDENTIFIED AS FP01 AND FP02, EXHAUSTING THROUGH TWO (2) VENTS.	ULTRA LOW SULFUR DISTILLATE AND USAGE LIMITS	0.0015	% SULFUR		0.043	LB/H		0		
LA-0192	CRESCENT CITY POWER	6/6/2005	DIESEL FIRED WATER PUMP				425 HP	GOOD ENGINE DESIGN AND PROPER OPERATING PRACTICES	0.61	LB/H	HOURLY MAXIMUM	0.02	T/YR	ANNUAL MAXIMUM	0.65	G/B-HP-H	ANNUAL AVERAGE
LA-0224	ARSENAL HILL POWER PLANT	3/20/2008	DFP DIESEL FIRE PUMP	DIESEL	310	HP	EQT-016	USE OF LOW-SULFUR FUELS, LIMITING OPERATING HOURS AND PROPER ENGINE MAINTENANCE	0.64	LB/H	MAX	0			0		
*MA-0039	SALEM HARBOR STATION REDEVELOPMENT	1/30/2014	Fire Pump Engine	ULSD	2.7	MMBTU/hr	4%w 300 hours of operation per 12-month rolling period S in ULSD: 4%w 0.0015% by weight		0.004	LB/H	1 HR BLOCK AVG	0			0		
MD-0040	CPV ST CHARLES	11/12/2008	INTERNAL COMBUSTION ENGINE - EMERGENCY FIRE WATER PUMP	DIESEL	300	HP			0		SEE NOTE	0			0		
*MD-0042	WILDCAT POINT GENERATION FACILITY	4/8/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA LOW SULFUR DIESEL	477	HP	40 CFR 60, SUBPART III, ULTRA LOW-SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES LIMITED TO 500 HOURS PER YEAR (12 MONTH ROLLING SUM); SULFUR CONTENT OF FUEL RESTRICTS SO <sub>2</sub> EMISSIONS.	USE OF ULTRA-LOW DIESEL SULFUR FUEL, LIMITED HOURS OF OPERATION AND DESIGNED TO MEET SUBPART III LIMITS	0.0049	G/B-HP-H	3-HOUR BLOCK AVERAGE	0			0		
MN-0070	MINNESOTA STEEL INDUSTRIES, LLC	9/7/2007	DIESEL FIRE WATER PUMPS (&lt;500 HP)					LIMITED SULFUR IN FUEL; LIMITED HOURS	0.05	% SULFUR	PERCENT BY WEIGHT IN FUEL (SULFUR)	0			0		
NC-0101	FORSYTH ENERGY PLANT	9/29/2005	IC ENGINE, EMERGENCY FIREWATER PUMP	DIESEL FUEL	11.4	MMBTU/H	usage limited to 200 h/yr		0.58	LB/H		0			0		
*NJ-0081	PSEG FOSSIL LLC SEWAREN GENERATING STATION	3/7/2014	Emergency diesel fire pump	Ultra Low Sulfur Distillate oil	0		The fire pump has a maximum heat input rate of 2.63 MMBTU/hr (approximately 250 HP) and is permitted for 100 hrs per year for testing and maintenance	Use of Ultra low sulfur fuel oil	0.002	LB/MMBTU		0			0		
*OH-0352	OREGON CLEAN ENERGY CENTER	6/18/2013	Emergency fire pump engine	diesel	300	HP	223.8 kW. Emergency fire pump engine restricted to 500 hours of operation per rolling 12 months.		0.003	LB/H		0.0008	T/YR		0		
OK-0129	CHOUTEAU POWER PLANT	1/23/2009	EMERGENCY FIRE PUMP (267-HP DIESEL)	LOW SULFUR DIESEL	267	HP		LOW SULFUR DIESEL	0.11	LB/H		0			0		
*PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY PROJECT	4/10/2014	Emergency Diesel Fire Pump	ULSD Fuel Oil #2	0		The Emergency Fire Pump is rated at 335 BHP and limited to 500 hr/yr (emergency operations and testing and maintenance, combined).		0.003	LB/H		0			0		

**Table D-E-7**  
**Sulfur Dioxide (SO<sub>2</sub>) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
SC-0113	PYRAMAX CERAMICS, LLC	2/8/2012	FIRE PUMP	DIESEL	500	HP	THE CONSTRUCTION PERMIT AUTHORIZES THE CONSTRUCTION OF ONE (1) FIRE PUMP. THIS PROCESS AND POLLUTANT INFORMATION IS FOR THIS ONE SINGLE FIRE PUMP.	USE OF LOW SULFUR FUEL DIESEL, SULFUR CONTENT LESS THAN 0.0015 PERCENT. OPERATING HOURS LESS THAN 100 HOURS PER YEAR FOR MAINTENACE AND TESTING.	0			0			0		
*WY-0070	CHEYENNE PRAIRIE GENERATING STATION	8/28/2012	Diesel Fire Pump Engine (EP16)	Ultra Low Sulfur Diesel	327	hp		Ultra Low Sulfur Diesel	0			0			0		
	Catoctin Power LLC		Firewater Pump	Ultra Low Sulfur Diesel	370	kW		ULSD (<0.05% S)	0.13	LB/H	3-hr average	100	hr/yr				
	Footprint Power Salem Harbor Development LP		Fire Pump	ULSD	80	MMBtu/hr			0.004	LB/H	1-hr average						
	CPV Valley Energy Center Wawayanda, NY		Fire Pump	ULSD	325	blp		Low sulfur fuel.	0.0014	lb/MMBtu	1-hr average						

**Table D-E-8**  
**Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	7/16/2018	EUPENGINE: Fire pump engine	Diesel	399	BHP	A 399 brake HP diesel-fueled emergency fire pump engine with a model year of 2011 or later, and a displacement of <10 liters/cylinder. The engine is an EPA Tier 3 certified engine subject to NSPS IIII.	Good combustion practices, low sulfur fuel.	15	PPM	FUEL SUPPLIER RECORDS OR TEST DATA	0			0		
NY-0103	CRICKET VALLEY ENERGY CENTER	2/3/2016	Emergency fire pump	ultra low sulfur diesel	460	hp		Ultra low sulfur diesel with maximum sulfur content 0.0015 percent.	0.0001	LB/MMBTU	1 H	0			0		
*VA-0325	GREENSVILLE POWER STATION	6/17/2016	DIESEL-FIRED WATER PUMP	DIESEL FUEL	0		FWP-1: 104.0 tons/year (12-month rolling total)	Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.0001	LB/MMBTU		0			0		
*MA-0039	SALEM HARBOR STATION REDEVELOPMENT	1/30/2014	Fire Pump Engine	ULSD	2.7	MMBtu/hr	8% 300 hours of operation per 12-month rolling period S in ULSD: 8% 0.0015% by weight		0.0003	LB/H	1 HR BLOCK AVERAGE	0			0		
*MD-0042	WILDCAT POINT GENERATION FACILITY	4/8/2014	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	ULTRA LOW SULFUR DIESEL	477	HP	40 CFR 60, SUBPART IIII, ULTRA LOW SULFUR DIESEL FUEL, GOOD COMBUSTION PRACTICES	USE OF ULTRA-LOW DIESEL SULFUR FUEL, LIMITED HOURS OF OPERATION AND DESIGNED TO MEET SUBPART IIII LIMITS	0.0049	G/B-HP-H	3-HOUR BLOCK AVERAGE	0			0		
*PA-0291	HICKORY RUN ENERGY STATION	4/23/2013	EMERGENCY FIREWATER PUMP	ULTRA LOW SULFUR DISTILLATE	3.25	MMBTU/H	EMERGENCY FIREWATER PUMP (450 BHP)		0.0012	LB/H		0.0001	T/YR	12-MONTH ROLLING TOTAL	0		
*PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE	12/17/2013	Emergency Firewater Pump	Diesel	16	Gal/hr			0	T/PY		0			0		
	CPV Valley Energy Center Wawayanda, NY		Fire Pump	ULSD	325	bhp		Low sulfur fuel.	0.00003	lb/MMBTu	1-hr average						
	Woodbridge Energy Center		Fire Wate Pump	Ultra Low Sulfur Diesel					0.002	lb/MMBTu		15	ppm				



**Table D-E-9**  
**Greenhouse Gases (GHG) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*AK-0084	DONLIN GOLD PROJECT	6/30/2017	Fire Pump Diesel Internal Combustion Engines	Diesel	252	hp	Three (3) 252 hp fire pump diesel internal combustion engines.	Good Combustion Practices	216	TPY (COMBINED)	YEARLY	0			0		
*LA-0312	ST. JAMES METHANOL PLANT	6/30/2017	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	Diesel	650	horsepower	Operating hour limit: 100 hr/yr	Compliance with NSPS Subpart IIII	37	TPY		0			0		
LA-0313	ST. CHARLES POWER STATION	8/31/2016	SCPS Emergency Diesel Firewater Pump 1	Diesel	282	HP		Good combustion practices	0			0			0		
LA-0316	CAMERON LNG FACILITY	2/17/2017	firewater pump engines (8 units)	diesel	460	hp		good combustion practices	0			0			0		
LA-0317	METHANEX - GEISMAR METHANOL PLANT	12/22/2016	Firewater pump Engines (4 units)	diesel	896	hp (each)		complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ. Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0			0			0		
LA-0323	MONSANTO LULING PLANT	1/9/2017	Fire Water Diesel Pump No. 3 Engine	Diesel Fuel	600	hp	Emergency engine with a limit of 100 hours/yr on operating hours for ready testing.	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0			0			0		
LA-0323	MONSANTO LULING PLANT	1/9/2017	Fire Water Diesel Pump No. 4 Engine	Diesel Fuel	600	hp	Emergency Engine limited to 100 hours/yr for ready tests	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0			0			0		
MI-0421	GRAYLING PARTICLEBOAR D	8/26/2016	Dieself fire pump engine (EUFIREPUMP in FGRICE)	Diesel	500	H/YR	One diesel fire pump engine rated at 400 KW (identified as EUFIREPUMP in FGRICE).	Good combustion and design practices.	56	T/YR	BASED UPON A 12-MO ROLLING TIME PERIOD	0			0		
MI-0423	INDECK NILES, LLC	1/4/2017	EUPENGINE (Emergency engine--diesel fire pump)	Diesel	1.66	MMBTU/H	A 260 brake horsepower (bhp) diesel-fueled emergency engine manufactured in 2011 or later and a displacement of <10 liters/cylinder. Powers a fire pump used for a back up during an emergency (EUPENGINE). Restricted to 1 hour/day, except during emergency conditions and stack testing, and 100 hours/year on a 12-month rolling time period basis.	Good combustion practices	13.58	T/YR	12 MO. ROLLING TIME PERIOD	0			0		
MI-0425	GRAYLING PARTICLEBOAR D	5/9/2017	EUFIREPUMP in FGRICE (Diesel fire pump engine)	Diesel	500	H/YR	One diesel fire pump engine rated at 400 KW (EUFIREPUMP in FGRICE).	Good combustion and design practices.	56	T/YR	12-MO ROLLING TIME PERIOD	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (South Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Good combustion practices.	85.6	T/YR	12-MO ROLLING TIME PERIOD	0			0		
*MI-0433	MEC NORTH, LLC AND MEC SOUTH LLC	6/29/2018	EUPENGINE (North Plant): Fire pump engine	Diesel	300	HP	A 300 HP diesel-fired emergency fire pump engine with a model year of 2011 or later, and a displacement of <30 liters/cylinder. Equipped with a diesel particulate filter.	Good combustion practices.	85.6	T/YR	12-MONTH ROLLING TIME PERIOD	0			0		
*MI-0435	BELLE RIVER COMBINED CYCLE POWER PLANT	7/16/2018	EUPENGINE: Fire pump engine	Diesel	399	BHP	A 399 brake HP diesel-fueled emergency fire pump engine with a model year of 2011 or later, and a displacement of <10 liters/cylinder. The engine is an EPA Tier 3 certified engine subject to NSPS IIII.	Energy efficient design	86	T/YR	12-MO ROLLING TIME PERIOD	0			0		
NY-0103	CRICKET VALLEY ENERGY CENTER	2/3/2016	Emergency fire pump	ultra low sulfur diesel	460	hp		Good combustion practice and efficient engine design.	115	TPY	MO	0			0		
TX-0799	BEAUMONT TERMINAL	6/8/2016	Fire pump engines	diesel	0			Equipment specifications and good combustion practices. Operation limited to 100 hours per year.	72.16	T/YR		0			0		
*VA-0325	GREENSVILLE POWER STATION	6/17/2016	DIESEL-FIRED WATER PUMP 376 bph (1)	DIESEL FUEL	0		FWP-1: 104.0 tons/year (12-month rolling total)	Good Combustion Practices/Maintenance	104	T/YR	12 MO ROLLING TOTAL	0			0		
*AK-0083	KENAI NITROGEN OPERATIONS	1/6/2015	Diesel Fired Well Pump	Diesel	2.7	MMBTu/hr	2.7 MMBtu/hr Diesel Fired Well Pump. Installed in 1966.	Limited Operation of 168 hr/yr.	37.2	T/YR		0			0		
IA-0105	IOWA FERTILIZER COMPANY	10/26/2012	Fire Pump	diesel fuel	14	GAL/H	rated @ 235 KW	good combustion practices	1.55	G/KW-H	AVERAGE OF 3 STACK TEST RUNS	0			0		
IA-0105	IOWA FERTILIZER COMPANY	10/26/2012	Fire Pump	diesel fuel	14	GAL/H	rated @ 235 KW	good combustion practices	0.0001	G/KW-H	AVERAGE OF 3 STACK TEST RUNS	0			0		
IA-0105	IOWA FERTILIZER COMPANY	10/26/2012	Fire Pump	diesel fuel	14	GAL/H	rated @ 235 KW	good combustion practices	91	T/YR	ROLLING 12 MONTH TOTAL	0			0		
*IL-0114	CRONUS CHEMICALS, LLC	9/5/2014	Firewater Pump Engine	distillate fuel oil	373	hp		Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.	72	T/YR		0			0		

**Table D-E-9**  
**Greenhouse Gases (GHG) RBLC Search - Fire Water Pump**  
**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*IN-0158	ST. JOSEPH ENERGY CENTER, LLC	12/3/2012	TWO (2) FIREWATER PUMP DIESEL ENGINES	DIESEL	371	BHP, EACH	THE TWO FIREWATER PUMP ENGINES, IDENTIFIED AS FP01 AND FP02, EXHAUSTING THROUGH TWO (2) VENTS.	GOOD ENGINEERING DESIGN AND FUEL EFFICIENT DESIGN	172	T/YR	12 CONSECUTIVE MONTH PERIOD	0			0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP		500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	527.4	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0179	OHIO VALLEY RESOURCES, LLC	9/25/2013	DIESEL-FIRED EMERGENCY WATER PUMP	NO. 2 FUEL OIL	481	BHP	ANNUAL OPERATION LIMITED TO 200 HR.	GOOD COMBUSTION PRACTICES	527.4	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	FIRE PUMP		500	HP	OPERATION LIMITED TO 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	527.4	G/B-HP-H	3-HR AVERAGE	0			0		
LA-0254	NINEMILE POINT ELECTRIC GENERATING PLANT	8/16/2011	EMERGENCY FIRE PUMP	DIESEL	350	HP		PROPER OPERATION AND GOOD COMBUSTION PRACTICES	163	LB/MMBTU		0			163	LB/MMBTU	
LA-0254	NINEMILE POINT ELECTRIC GENERATING PLANT	8/16/2011	EMERGENCY FIRE PUMP	DIESEL	350	HP		PROPER OPERATION AND GOOD COMBUSTION PRACTICES	0.0014	LB/MMBTU		0			0.0014	LB/MMBTU	
LA-0254	NINEMILE POINT ELECTRIC GENERATING PLANT	8/16/2011	EMERGENCY FIRE PUMP	DIESEL	350	HP		PROPER OPERATION AND GOOD COMBUSTION PRACTICES	0.0061	LB/MMBTU		0			0.0061	LB/MMBTU	
*MA-0039	SALEM HARBOR STATION REDEVELOPMENT	1/30/2014	Fire Pump Engine	ULSD	2.7	MMBTU/hr	Approx 300 hours of operation per 12-month rolling period		162.85	LB/MMBTU		0			0		
MD-0040	CPV ST CHARLES	11/12/2008	INTERNAL COMBUSTION ENGINE - EMERGENCY FIRE WATER PUMP	DIESEL	300	HP	5 in ULSD; Approx 0.0015% by weight		3	G/B-HP-H		0			0		
*MI-0410	THETFORD GENERATING STATION	7/25/2013	EU-FPENGINE: Diesel fuel fired emergency backup fire pump	diesel fuel	315	hp nameplate	This is a diesel fuel fired emergency backup fire pump. It has a capacity of 315 hp, nameplate, and uses diesel fuel ASTM D975 Grade 2-D S15.  Ultra low sulfur diesel fuel (15ppmw); 100 hours per year operation for maintenance and readiness testing. NSPS IIII and NESHAP ZZZZ.	Proper combustion design and ultra low sulfur diesel fuel.	15.6	T/YR	12-MO. ROLL TIME PERIOD	0			0		
*MI-0412	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	12/4/2013	Emergency Engine --Diesel Fire Pump (EUFENGINE)	Diesel	165	HP	A 165 horsepower (hp) diesel-fueled emergency engine manufactured in 2013, with a heat input of 1.35 MMBTU/hr. Powers a fire pump used for back up during an emergency (EUFENGINE). Restricted to 500 hours/year on a 12-month rolling time period basis.	Good combustion practices	0.29	T/YR	12-MO ROLLING TIME PERIOD	0			0		
*OH-0352	OREGON CLEAN ENERGY CENTER	6/18/2013	Emergency fire pump engine	diesel	300	HP	223.8 kW. Emergency fire pump engine restricted to 500 hours of operation per rolling 12 months.		87	T/YR	PER ROLLING 12-MONTHS	0			0		
*PA-0291	HICKORY RUN ENERGY STATION	4/23/2013	COMBINED CYCLE UNITS #1 and #2	Natural Gas	3.4	MMCF/HR	The Permittee shall select and install any of the turbine options listed below (or newer versions of these turbines if the Department determines that such newer versions achieve equivalent or better emissions rates and exhaust parameters) 1. General Electric 7FA (GE 7FA) 2. Siemens SGT6-5000F (Siemens F) 3. Mitsubishi M501G (Mitsubishi G) 4. Siemens SGT6-8000H (Siemens H) The emissions listed are for the Siemens SGT6-8000H unit.		3665974	T/YR	12-MONTH ROLLING TOTAL FOR BOTH UNITS	0			0		
*PA-0291	HICKORY RUN ENERGY STATION	4/23/2013	EMERGENCY FIREWATER PUMP	ULTRA LOW SULFUR DISTILLATE	3.25	MMBTU/H	EMERGENCY FIREWATER PUMP (450 BHP)		33.8	T/YR	12-MONTH ROLLING BASIS	0			0		

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**Invenergy, LLC - Allegheny County Energy Center Project**

RBLCID	FACILITY NAME	PERMIT ISSUANCE DATE	PROCESS NAME	PRIMARY FUEL	THROUGHPUT	THROUGHPUT UNIT	PROCESS NOTES	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	UNITS	AVG TIME CONDITION	EMISSION LIMIT 2	UNITS	AVG TIME CONDITION	STANDARD EMISSION LIMIT	UNITS	AVG TIME CONDITION
*PA-0296	BERKS HOLLOW ENERGY ASSOC LLC/ONTELAUNEE	12/17/2013	Emergency Firewater Pump	Diesel	16	Gal/hr			19	T/YR		0			0		
*PR-0009	ENERGY ANSWERS ARECIBO PUERTO RICO RENEWABLE ENERGY PROJECT	4/10/2014	Emergency Diesel Fire Pump	ULSD Fuel Oil #2	0		The Emergency Fire Pump is rated at 335 BHP and limited to 500 hr/yr (emergency operations and testing and maintenance, combined).		91.3	T/YR		0			0		
*TX-0753	GUADALUPE GENERATING STATION	12/2/2014	Fire Water Pump Engine	ULSD	1.92	MMBtu/hr (HHV)	Shall not exceed 100 hours of non-emergency operation on a 12-month rolling basis and shall be operated and maintained in accordance with the manufacturer's recommendations.		15.71	T/YR		0			0		
*TX-0757	INDECK WHARTON ENERGY CENTER	5/12/2014	Firewater Pump Engine	ULSD	175	hp	Indeck will be equipped with one nominally rated 175-hp diesel-fired pump engine to provide water in the event of a fire. The fire water pump will operate a maximum of 52 hours of non-emergency operation on a 12-month rolling basis for testing and maintenance. The fire water pump engine emissions represent 0.003% of the total facility-wide GHG emissions.		5.34	T/YR	12-MONTH ROLLING TOTAL	0			0		
*TX-0758	ECTOR COUNTY ENERGY CENTER	8/1/2014	Firewater Pump Engine	Diesel	0				5	T/YR	12-MONTH ROLLING TOTAL	0			0		
VA-0319	GATEWAY COGENERATION I, LLC - SMART WATER PROJECT	8/27/2012	FIRE WATER PUMP	diesel (ultra low sulfur)	1.86	MMBTU/H	500 H/Yr operation	Fuel-efficient design	30.5	T/YR	12 MO ROLLING AVG	0			0		
*WV-0025	MOUNDSVILLE COMBINED CYCLE POWER PLANT	11/21/2014	Fire Pump Engine	Diesel	251	HP	Limited to 100 Hours/year.		309	LB/H		0			0		
*WY-0076	ROCK SPRINGS FERTILIZER COMPLEX	7/1/2014	Fire Water Pump Engine	Diesel	200	horsepower	limited to 500 hours of operation	limited to 500 hours of operation per year	58	T/YR	ANNUAL	0			0		
*WY-0076	ROCK SPRINGS FERTILIZER COMPLEX	7/1/2014	Fire Water Pump Engine	Diesel	200	horsepower	limited to 500 hours of operation	limited to 500 hours of operation per year	58	T/YR	ANNUAL	0			0		
*IN-0180	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	527.4	G/B-HP-H	3-HR AVERAGE	0			0		
*IN-0173	MIDWEST FERTILIZER CORPORATION	6/4/2014	RAW WATER PUMP	DIESEL, NO. 2	500	HP	OPERATION NOT TO EXCEED 500 HOURS PER YEAR. INSIGNIFICANT ACTIVITY, WILL NOT BE TESTED.	GOOD COMBUSTION PRACTICES	527.4	G/B-HP-H	3-HR AVERAGE	0			0		
	Russell City Energy Company, LLC		Fire Pump	ULSD	300	HP			7.6	T/YR	12-month rolling						
	Kalama Energy Center		Fire pump engine	Ultra Low Sulfur Diesel	240	bhp			7.1	T/YR	12-month Rolling						